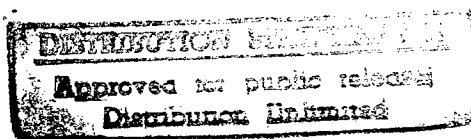




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# ***JPRS Report***

# **Proliferation Issues**



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# PROLIFERATION ISSUES

JPRS-TND-92-020

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25 June 1992

[This report contains foreign media information on issues related to worldwide proliferation and transfer activities in nuclear, chemical, and biological weapons, including delivery systems and the transfer of weapons-relevant technologies.]

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## **SOUTH AFRICA**

### **Armcor's Space Program Investigated**

*MB2406150392 Johannesburg BUSINESS DAY  
in English 24 Jun 92 p 3*

[Article by political staff: "Space plan defended"]

[Text] The space programme by Denel, the privatised wing of Armcor's [Armaments Corporation of South Africa] activities, was merely of a commercial nature, Public Enterprises Minister Dawie de Villiers said yesterday.

"An investigation is at present being undertaken and co-ordinated by Denel (Pty) Ltd in co-operation with other interested parties in the total South African industry as well as a variety of foreign space relations organisations, on the feasibility of a space industry in SA [South Africa]."

He said the aim of the investigation was to determine the market opportunities, risks and profitability of such an industry.

The probe was "merely of a commercial nature," he said in reply to a question tabled in parliament.

## AUSTRALIA

**Evans 'Delighted' By U.S., Russia Weapons Cuts**  
*BK1706073892 Melbourne Radio Australia in English 0500 GMT 17 Jun 92*

[Text] The Australian Government has welcomed the latest announced cuts in nuclear weapons and urged other countries with nuclear weapons stockpiles to follow suit.

The foreign affairs minister, Gareth Evans, says the Australian Government is delighted with the cuts decided by American President George Bush and Russian leader, Boris Yeltsin, which goes substantially below the numbers agreed in last year's START Treaty. The two leaders say they will reduce their nuclear weapons from a combined total of 21,000 to about 7,000 over the next decade.

Senator Evans told parliament the move represents a dramatic and extremely welcome reduction in the nuclear armory. He says it gives clear expression of a significantly improved security relationship between the two nuclear superpowers. The minister also called on Britain, France, and China to follow the example.

## JAPAN

**Miyazawa, Indian Counterpart on Disarmament**

**Agree To Working-Level Talks**  
*OW2306111392 Tokyo KYODO in English 1022 GMT 23 Jun 92*

[Text] Tokyo, June 23 KYODO—The prime ministers of Japan and India agreed Tuesday to hold working-level talks on nuclear disarmament aimed at confidence-building, a Foreign Ministry official said.

Kiichi Miyazawa and P.V. Narasimha Rao reached the agreement in a summit meeting.

Rao is currently on a five-day visit to Japan through Friday as part of events marking the 40th anniversary of diplomatic relations between the two countries.

The official, in a briefing to reporters, said the talks were aimed at confidence-building but did not spell out the contents.

He also declined to specify whether Japan's proposal was related to its year-old policy of linking economic aid and recipient nations' policies on nuclear nonproliferation and arms reduction.

The two sides remain at odds over the nuclear nonproliferation treaty, the official said.

Miyazawa told Rao that the end of the cold war has heightened the need for arms reduction and strengthening of the nuclear nonproliferation treaty (NPT).

Rao reiterated that India regards the NPT as favoring nations that declared they had nuclear weapons when the treaty was drawn up, the official said.

Rao told Miyazawa that India supports the complete eradication of nuclear weapons and is working through the United Nations toward that end, the official said.

India has acknowledged exploding a nuclear device in 1974 but maintains it does not possess nuclear weapons.

New Delhi agreed earlier to enter talks on nuclear disarmament with the United States.

In the meeting, Miyazawa pledged 112 billion yen in loans for fiscal 1992 starting in April, a 5 percent increase over the previous year.

In cultural aid, Japan will provide 500,000 dollars (about 6.5 million yen) to help restore Buddhist monuments and will also dispatch a mission to investigate how to help preserve traditional performing arts and crafts, the official said.

Japan is India's largest bilateral aid donor.

Miyazawa told Rao that the Japanese Government is favorably considering an invitation to Prince and Princess Akishino to visit India as part of the 40th anniversary celebrations, the official said. Prince Akishino is the younger son of Emperor Akihito.

On Wednesday, Rao, 70, is scheduled to meet separately with Finance Minister Tsutomu Hata and Minister of International Trade and Industry Kozo Watanabe, and hold a press conference.

## Urge Suspension of Nuclear Tests

*BK2306092092 Delhi All India Radio Network in English 0830 GMT 23 Jun 92*

[Excerpt] The prime minister has called for India and Japan to speak with one voice to represent the conscience of humanity on nuclear nonproliferation. Mr. Narasimha Rao was speaking at a function at the Institute of International Affairs in Tokyo today to mark the 40th anniversary of the establishment of diplomatic relations between India and Japan. He said nuclear nonproliferation has always been one of India's central concerns. He called for a convention on the elimination of nuclear weapons, a verifiable freeze on the production of fissionable material for weapons, suspension of all nuclear weapon tests, and negotiations for general and complete disarmament. Focusing attention on the widening North-South divide, Mr. Narasimha Rao called for consensus in international relations and democratization of the United Nations.

The prime minister outlined a new positive relationship with Japan based on shared interest in Asian peace and security that will enable India to concentrate on economic development. He said the dynamic success of Japan, ASEAN, and the newly industrialized economies of Asia has attracted India's attention and its economic liberalization is based on this model. Mr. Rao said the post-cold war situation and economic reforms in India offer a new window of opportunities in our relations. Recalling the age-old ties between India and Japan, Mr. Rao said the bridges of understanding built by Tagore and (Ukakura) are a source of strength for renewing bilateral relations. [passage omitted]

## NORTH KOREA

**EC Reaffirms Link Between Inspection, Ties**

*SK2206005192 Seoul YONHAP in English 0038 GMT 22 Jun 92*

[Text] Seoul, June 22 (OANA-YONHAP)—The 12 member nations of European Community (EC) have reaffirmed that Pyongyang's acceptance of inter-Korean nuclear inspection is a condition to improving their ties with North Korea, Foreign Ministry officials said Monday.

The European Political Cooperation (EPC) Political Committee has called, at a meeting June 17-18 in Lisbon, for effective International Atomic Energy Agency (IAEA) and inter-Korean nuclear inspections, saying they are prerequisites to better relations with North Korea.

The committee took up the issue at the recommendation of the EPC Asian Working Group, which met June 4 in Brussels.

#### **UK Official Concerned Over Nuclear Development**

SK2406113092 Seoul KBS-1 Radio Network in Korean  
1000 GMT 24 Jun 92

[Text] United Kingdom's Secretary of State for Foreign Affairs, (Goodled) [as heard], who is on a visit to the ROK, paid a courtesy call on ROK Foreign Minister Yi Sang-ok on 24 June and revealed that the United Kingdom is greatly worried about North Korea's nuclear development as well as its export of missiles to the Middle East.

Regarding North Korea's nuclear development, Secretary of State (Goodled) said the United Kingdom shares the ROK's opinion that North Korea must accept nuclear inspection by the International Atomic Energy Agency as well as mutual inspection, which is in accordance with the South-North agreement. He also said the international community will continue to pressure North Korea regarding this matter.

#### **Envoy Speaks on Purpose of Yongbyon Facility**

##### **'Doubts' To Be Cleared Soon**

SK1906031492 Seoul SEOUL SINMUN in Korean  
19 Jun 92 p 4

[YONHAP report on a news conference with O Chang-nim, North Korea's roving ambassador, with unidentified reporters from International Atomic Energy Agency headquarters in Vienna on 17 June]

[Text] [Reporter] Will your country continue the construction of the reprocessing facility in Yongbyon?

[O Chang-nim] We are building a radiochemical laboratory for the purpose of studying the nuclear fuel recycling system. This should be continued and completed as planned. It is also important for scientific, technological, and economic development.

[Reporter] Some people question the facility's purpose saying it may be for extracting plutonium to develop weapons.

[O] The radiochemical laboratory has already been opened to the IAEA inspectors. All doubts concerning this laboratory will be answered through an inspection sooner or later.

[Reporter] Some people believe that your country may have hidden some nuclear reprocessing facilities separate from the radiochemical laboratory.

[O] We have listed all the facilities and materials in our report to the IAEA. We also have clarified our intention to open unlisted ones upon request.

[Reporter] It has been said that North Korean nuclear facilities are backward both economically and in safety. In this regard, is your country willing to give up the radiochemical laboratory if some other countries offer nuclear materials?

[O] No one has yet made such an offer. So, I cannot discuss it now.

[Reporter] What if there is such an offer?

[O] We will check its conditions if really there is such an offer. But, is any country willing to offer us nuclear materials free of charge?

[Reporter] Does not the construction of the radiochemical laboratory violate the South-North declaration on denuclearization that bans the possession of reprocessing facilities?

[O] The laboratory, which is now under construction, is not a reprocessing facility. North Korean scientists want this facility for research purposes and we cannot stop them.

[Reporter] The IAEA called the radiochemical laboratory a "plant-size reprocessing facility upon completion." Do you agree with this opinion?

[O] It is not a reprocessing plant since it is under construction.

[Reporter] Do you mean that it will become a reprocessing facility upon completion?

[O] We do not know whether it is a reprocessing facility or not until after it is completed.

#### **Stresses Economic Need**

SK1906004992 Seoul YONHAP in English 0000 GMT  
19 Jun 92

[Text] Vienna, Austria, June 18 (YONHAP)—North Korea intends to complete the construction of "the radiochemistry laboratory" which the International Atomic Energy Agency (IAEA) said would be large nuclear reprocessing facilities when completed.

North Korean Ambassador O Chang-nim, who is attending the IAEA Board of Governors' meeting, told a press conference Thursday that North Korea is building the laboratory to undertake research on nuclear material.

"The construction has to be completed for the technological and economic development of the country," O said.

He insisted that the radiochemistry laboratory for scientific research does not violate the Joint Declaration on the Denuclearization of the Korean peninsula issued by South and North Korea on Dec. 31, 1991.

The suspicion that this laboratory is for the production of plutonium for nuclear weapons will be vindicated through the IAEA inspections, O said.

Asked whether North Korea is willing to abandon the construction of the laboratory if foreign countries offer nuclear material, O said there has not been any such offer so far. North Korea will study conditions if such an offer is made, he added.

Earlier, the IAEA Board of Governors held a debate and shared the opinion that international suspicion on North Korea's nuclear program was increasing despite the IAEA's ad hoc inspection of its facilities.

The board asked the IAEA to make reports on the issue continuously until it is resolved.

At the debate, some 20 out of 35 board member nations supported Seoul's position that demands simultaneous

inspections of nuclear facilities in South and North Korea and an immediate halt to the construction of reprocessing facilities.

### Envoy Addresses IAEA Governors Talks

SK2206022292 *Pyongyang Korean Central Broadcasting Network in Korean 2200 GMT 21 Jun 92*

[Speech by O Chang-nim, head of DPRK delegation, at an IAEA Board of Governors meeting in Vienna on 18 June]

[Text] O Chang-nim, head of the DPRK delegation, spoke at a board of governors meeting of the International Atomic Energy Agency [IAEA] on 18 June.

In the speech he stressed it is the DPRK Government's consistent position to faithfully implement the noble ideals and mission set forth in the Nuclear Non-Proliferation Treaty [NPT] and thoroughly realize the denuclearization of the Korean peninsula.

He said that because of the DPRK Government's initiative and positive efforts, the issue of nuclear inspection in our country is being resolved smoothly today. He noted that according to the Nuclear Safeguards Accord, we submitted to the IAEA an initial inventory report on nuclear material and a report on nuclear facilities covering all nuclear materials and nuclear facilities we have on 4 May, much earlier than the deadline.

Then, in the middle of last May, expressing the principle volunteerism [chawonsong] and the spirit of positive cooperation, we helped realize the visit to our country by the IAEA director general and his entourage. During this visit, we took a bold confidence-building step of opening to inspection not only the nuclear facilities included in the initial report but also those facilities that do not fall under the category of inspections according to the safeguards accord.

During the director general's visit, we agreed with the IAEA to closely cooperate henceforth on the peaceful use of nuclear energy and nuclear safeguards. We also expressed the initiative and positive position that if the IAEA wishes to do so, official functionaries of the IAEA have the option to visit and observe [chamgwansu] suspected places and facilities in our country. Because of our bold and initiative efforts, the first non-regular IAEA inspection designed to work out bylaws was conducted without any deviation.

All this proved the truthfulness of our position that we mean what we say and realistically demonstrates that we are invariably true to our promise and supported it with action. We will spare no efforts to help the IAEA conduct its nuclear inspections smoothly and will actively cooperate with the IAEA in this field. At the same time, we will, as we have done in the past, use nuclear energy only for peaceful purposes, thereby remaining faithful to obligations provided for by international law according to the NPT, and make positive efforts for the fair implementation of the treaty.

We will never refrain from doing what we ought to do or from doing what we ought not to do even if someone puts pressure on us. We expect the IAEA and all its member states will support the DPRK Government's principled position to resolve the nuclear safeguards issue fairly and finally and to further promote the peaceful use of nuclear energy with active technological cooperation of the IAEA and its member states.

Before concluding my speech, I would like to state our position on the issues raised in the meeting.

First, we would like to express our position on the worries expressed by some board governors over our nuclear facilities. We intend to meet our country's increasing demand for electricity by building a foundation of hydroelectric and thermal power plants as well as building atomic power plants.

One of the important problems in building a nuclear power industry is to correctly select a nuclear reactor form that is used for power. We chose a natural uranium, graphite moderation, and carbon dioxide cooling-type nuclear reactor.

Even though we did not have the technology and facility for enriched uranium and the technology to produce heavy water, we had a synthetic graphite producing base for a long time in our country. If we solve the problem of producing heavy water technology based on this, we can easily solve the problem of speed-reduction materials [kamsokche].

We are building a radiochemical laboratory for research purposes to establish a nuclear fuel (?checking) system. The only purpose for developing nuclear power is to produce more electric power. Since our nuclear facilities are under the guarantee and surveillance [tambogamsi] of the IAEA, they will certainly be safe.

Secondly, some governors of the board urged the fulfillment of the North-South joint declaration on denuclearization. This kind of problem should not be discussed at the IAEA's Board of Governors meeting. This is a problem to be discussed and solved by the North and South. Therefore, we are trying to solve this problem through the North-South Joint Nuclear Control Committee meeting. We believe that if both sides of the North and South sincerely try to solve this problem under the spirit of the joint declaration on denuclearization, this problem can be solved.

We are actively trying to fulfill the North-South joint declaration on denuclearization. The reason the North-South joint declaration on denuclearization is not being fulfilled is that the South Korean authorities oppose the inspection which we urge. They are trying to exclude U.S. nuclear bases and nuclear weapons in South Korea from inspection sites.

Since the existing nuclear threat on the Korean peninsula comes from U.S. nuclear weapons deployed in South Korea, the South Korean authorities must open to the public the nuclear weapons and nuclear energy plants in South Korea and receive inspection of these nuclear weapons and nuclear energy plants.

Nevertheless, the South Korean authorities are maneuvering to exclude nuclear bases and nuclear weapons in South Korea from inspection sites and by doing so they are putting the brakes on the joint declaration on denuclearization's realization.

As all the member countries of the Board of Governors know very well, the problem of simultaneous nuclear inspection was originally proposed by us and the United States accepted the proposal.

To solve the nuclear inspection problem in a fair way, the DPRK insisted that the United States withdraw all nuclear weapons from South Korea, remove all nuclear threats against us, and accept simultaneous inspection of nuclear weapons and nuclear bases in South Korea.

The United States which could not ignore our just proposal, announced its plan to withdraw strategic nuclear weapons in September 1991 and then expressed its intention to withdraw nuclear weapons from South Korea. The United States and South Korea said that they would suspend the Team Spirit joint military exercise.

The United States also accepted our proposal for simultaneous inspection and responded to the DPRK-U.S. high-level talks. In particular, at the January 1992 DPRK-U.S. high-level negotiations, the U.S. side said that it would accept inspection for confirming whether U.S. nuclear weapons and nuclear bases in South Korea exist.

Through the consistent efforts of our Republic's Government, an important barrier that hindered the conclusion of the safeguards accord was eliminated, and conditions to solve this problem were created. Therefore we concluded the safeguards agreement in February 1992 with the IAEA which is in accordance with the NPT, and also carried out non-regular [pijonggi] inspections.

Today, when we are already receiving inspection by the IAEA, the South Korean authorities must respond to inspection to determine whether U.S. nuclear bases and nuclear weapons in South Korea exist.

The South Korean delegate must first reveal a definite position on whether the South Korean authorities can accept a full-scale inspection of U.S. nuclear bases and nuclear weapons in South Korea. To eliminate the fundamental problem and verify the denuclearization of the Korean peninsula, an inspection of U.S. nuclear bases and nuclear weapons in South Korea is needed.

### Japanese Source on Stopping Yongbyon Construction

SK2506033192 Seoul KYONGHYANG SINMUN  
in Korean 25 Jun 92 p 2

[Report by Tokyo-based correspondent Yi Tong-chu]

[Text] Choe U-chin, deputy director of Disarmament and Peace Institute, who is the North Korean side's chairman of the North-South Joint Nuclear Control Committee, told the Japanese side that North Korea "will stop construction on the radiochemical laboratory in Yongbyon," according to a TOKYO SHIMBUN report dated 24 June quoting a Japanese government source. TOKYO SHIMBUN reported that if deputy director Choe's remarks are true, it will help dispel doubts concerning North Korea's nuclear development.

### 'Suspicion' Over Nuclear Program Continues

SK1906031192 Seoul YONHAP in English 0243 GMT  
19 Jun 92

["News analysis" by Hong Sung-pyo: "IAEA Board Adjourns Meeting, Confirming Need To Watch North Korea"—YONHAP headline]

[Text] Vienna, June 19 (YONHAP)—The Board of Governors of the International Atomic Energy Agency (IAEA) adjourned its regular meeting Friday after confirming that suspicion still surrounds North Korea's nuclear program despite the IAEA's inspection of its facilities.

Another significant problem that emerged from the four-day meeting is the safety of North Korea's nuclear facilities, brought into question by the IAEA's inspection.

The meeting, attended by 35 member nations, wound up its debate on the North Korean nuclear issue and decided that North Korea was unable to dispel international suspicion on its nuclear intentions. On the contrary, it had intensified suspicion.

The IAEA's continuing attention and discussion was needed for the issue, the Board concluded.

The international suspicion that has risen as a result of the IAEA's inspection, led by Director General Hans Blix, can be summarized in two points.

First, North Korea is said to have succeeded in experimentally extracting plutonium and is now building large facilities for the production of plutonium, or a reprocessing plant. There was no sign, however, that North Korea has passed the experimental production stage, a technical procedure it must follow.

North Korea claimed that it "skipped" the process because of economic considerations. But experts say that from a technical point of view such a claim is "impossible or irrational" and as a result they suspect North Korea might be hiding a considerable amount of plutonium for nuclear weapons or other reprocessing facilities.

Another point of suspicion is raised by the overall picture of North Korea's nuclear facilities.

According to North Korea, it possesses a so-called gas reactor that uses natural uranium as its fuel, graphite as a moderator and carbonic gas as a coolant. In addition, it is building the controversial "radiochemistry laboratory."

North Korea insists that its nuclear program is geared for electric power generation, but experts point out that the gas reactor is a low-efficient, old type left over from the 1950's. If North Korea wanted to generate electric power, it should have used a light-water reactor fueled by enriched uranium.

Moreover, the experts are not persuaded by North Korea's claim that the radiochemistry laboratory is for the production of fuel for a fast-breeder reactor.

North Korea's explanation of its need for the radiochemistry laboratory does not hold water, the experts say, because the technology for the fast-breeder reactor is so advanced that even industrialized nations are not expected to perfect it before the year 2000, much less North Korea, which is using nuclear technology from the 1950's.

Commenting on such contradictory North Korean explanations, the experts say that the nuclear reactor North Korea is using with natural uranium as its fuel is best suited for the production of plutonium-239 for nuclear weapons.

Therefore, the experts say that they could not but conclude that North Korea's nuclear program can only be aimed at producing nuclear weapons.

North Korea failed to dispel suspicions like these at the just-adjourned Board of Governors' meeting. It insisted that future IAEA inspections will vindicate it.

Such a claim, however, only heightens the suspicion that Pyongyang is using the IAEA inspections as a means to lessen suspicion since the IAEA can inspect only those facilities that are reported by North Korea.

North Korea, in other words, is trying to shift the focus away from the need for simultaneous inspections between South and North Korea and create an impression in the world community that it is doing no wrong using the results of the IAEA inspections alone.



In fact, there was a view shortly before Blix's visit to North Korea last month that the IAEA might be used by North Korea. Some observers noted that Iran used similar tactics when it invited Blix last year and let him tour a number of nuclear facilities and tried to erase international suspicion that it might be trying to produce nuclear weapons.

Nevertheless, Blix stressed that his visit to North Korea was not a part of an inspection but a survey. He also emphasized that there remain a lot of problems with regard to IAEA inspections on facilities reported by North Korea.

Thus the Board of Directors, contrary to North Korea's wishes, decided that debate on the issue should continue and that simultaneous inspections by South and North Korea are a must.

## SOUTH KOREA

### U.S., ROK To Press North on Inspections

SK2506094892 Seoul YONHAP in English 0931 GMT  
25 Jun 92

[Text] Seoul, June 25 (OANA-YONHAP)—South Korea and the United States vowed Thursday close consultation with Japan, the European Community and other allies to press North Korea to accept inter-Korean nuclear inspection.

The inter-Korean inspection must include challenge inspection and North Korea's military installation in order to stop Pyongyang's nuclear development, the United States emphasized.

South Korean Foreign Minister Yi Sang-ok and visiting U.S. Undersecretary of Defense for Policy Paul Wolfowitz discussed North Korea's nuclear suspicions during their 70-minute meeting, Chong Tae-ik, director-general of American Affairs Bureau, said.

Without complete removal of North Korea's nuclear suspicion, Washington cannot "regularize" high-level contacts with Pyongyang, Wolfowitz was quoted as saying.

The remark indicates a slight change from Washington's earlier position that it will not hold any such high-level contact until the problem is solved.

Yi explained South Korea's position on the nuclear inspection regime, recent development in Joint Nuclear Control Commission (JNCC) negotiations and Seoul's concerns about results of International Atomic Energy Agency (IAEA)'s ad hoc inspection on North Korea, Chong said.

He called special attention to the operation records IAEA obtained on Pyongyang's radiochemical laboratory, suspected to be ultimately used as reprocessing facility.

South Korea doubts the credibility of the operation records, Yi told Wolfowitz, and more details must be verified through inter-Korean inspection, he said.

It would be difficult for South-North Korean relations to progress without full resolution of Pyongyang nuclear problem, Yi said.

Wolfowitz called for "effective and credible inspection regime" but did not indicate any deadline on when the regime should be decided, Chong said.

The regime must cover North Korea's military installations to maintain reciprocity, the undersecretary said. The United States will show its military facilities in the South when North Korea shows its military installations as well, he said.

Commenting on North Korea's radiochemical laboratory, Wolfowitz stressed it is in violation of the inter-Korean joint declaration of the denuclearization of the Korean peninsula where both sides promised not to possess nuclear reprocessing facilities.

North Korea must "hold the continued construction and forego the reprocessing facilities," he was quoted as saying.

### Aid Linked To DPRK Acceptance of Inspections

SK2206011192 Seoul YONHAP in English 0053 GMT  
22 Jun 92

[Text] Seoul, June 22 (OANA-YONHAP)—South Korea may untie economic cooperation with North Korea if Pyongyang makes clear its intention to accept inter-Korean nuclear inspection, government officials said Monday.

"The government's current position is that it withholds any economic exchanges with North Korea until it accepts the mutual inspection and resolves suspicions about its nuclear arms development," an official said.

"But if North Korea shows a sincere attitude in negotiating inter-Korean inspection regimes at future Joint Nuclear Control Commission (JNCC) meetings, South Korea may go ahead with economic cooperation within certain bounds," the official said.

"But the pre-condition is that North Korea must unequivocally make clear that it will accept inter-Korean nuclear inspection," he said.

Depending on the progress of nuclear talks, South Korea will promote economic cooperation side-by-side, he said.

Seoul had already discussed this stance with the United States, the official said.

Seoul proposed to Pyongyang that the next JNCC meeting be held on June 30. It will be the sixth meeting of the commission, inaugurated in March to draw up an inspection regime.

Possible South-North Korean economic cooperation includes the Tumen River development project with China, Japan and Russia, and establishment of a multilateral economic cooperation body in Northeast Asia.

### JNCC Inspection Talks To Continue in Panmunjom

SK2306051992 Seoul YONHAP in English 0457 GMT  
23 Jun 92

[Text] Seoul, June 23 (OANA-YONHAP)—The inter-Korean Joint Nuclear Control Commission (JNCC) will meet on June 30 at the truce village of Panmunjom for Sixth Round of talks on mutual nuclear inspection, officials said Tuesday.

Choe U-chin, North Korean-side chairman of the JNCC, sent a telephone message to his South Korean counterpart Kong No-myong agreeing to meet on June 30, officials said.

The commission, inaugurated last March, is the negotiation body for determining inter-Korean mutual nuclear inspection regime and for overseeing the inspections once they start.

Last JNCC meeting was on May 27, and its failure broke the understood agreement between the two sides that the

regime would be settled by the end of May and the first inspection conducted by mid-June.

Next week's meeting will discuss inclusion of military installations in the inspection and challenge inspection that would open up suspected facilities with just 24-hour notice.

**ARGENTINA****Menem Pressured on Iranian Nuclear Deal**

PY1606210492 Buenos Aires LA PRENSA in Spanish  
13 Jun 92 p 9

[By Alfredo Canedo]

[Text] President Carlos Menem has been under strong pressure from Foreign Minister Guido Di Tella not to cancel nuclear contracts with Iran since the day of his return from the Middle East at the beginning of May.

Some of Di Tella's most important recommendations are:

1. Renegotiate contracts signed between the public company Applied Investigations (Invap) and Iran's pilot plant for uranium purification and fuel elements production.
2. Submit the new nuclear contracts with Iran for consideration by the International Atomic Energy Agency (IAEA).
3. Accept the new contracts, which will be worth about \$18 million.
4. Participate, through Invap, in building the reactor programmed at Teheran University that never was rejected by the IAEA.
5. Continue Argentina's nuclear relations with Iran—which began during Shah Pahlevi's administration—for purely economic purposes and without eventual military applications.

Di Tella's "reasonable arguments"—which have very weak flanks—already have been rejected by the president. A few weeks ago Menem signed Decree No. 603/92 prohibiting the exportation of sensitive information and nuclear energy elements to Iran. The president also announced the privatization of the Atucha I and Embalse nuclear power plants and the liquidation of the plutonium producing plant, the uranium enrichment and radioisotopes processing and producing plant, and the uranium ore manufacturing facilities.

The president also has taken steps to increasingly distance himself from Di Tella. For instance, Menem estimated a 1992 investment of \$900 million in the area of nuclear energy. Of this total, \$360 million is allotted to the Atucha II power plant, \$100 million to salaries for researchers, operators, and administration employees, \$60 million to projects, \$150 million to operational expenses, and the rest to pay debts.

After meeting with King Fahd of Saudi Arabia on 5 May, Menem announced to a large group of reporters at the palace's entrance stairs that he would suspend nuclear shipments to Iran and exports to Iraq worth \$350 million. The president added, however, that the losses would be compensated for by Saudi investments in Argentina.

Back in Buenos Aires, Presidency Secretary General Eduardo Bauza informed Menem that State Department spokeswoman Margaret Tutwiler had sent him a message saying the U.S. Government had information, although not enough evidence, about alleged Iranian complicity in the attack against the Israeli Embassy in Buenos Aires on 17 March.

On 1 June, Media Secretary Raul Burzaco read Menem part of an article published the day before by THE WASHINGTON POST saying: "Secretary of Defense Richard Cheney approved the Pentagon's plan (Defense Planning Guide) providing for the shipment to Saudi Arabia of

needed equipment for stationing five or six fighter squadrons, that is nearly 400 planes, in that country. In the document, the United States and Saudi Arabia agreed to beef up the military presence in the border areas with Iran and Iraq, without ruling out the cooperation of friendly nations."

Incidentally, two weeks ago President George Bush authorized the CIA to triple its \$15 million budget for intelligence and covert actions against the government of Iraqi President Saddam Husayn.

Of course, the Argentine Government could not be detached from this U.S. action. Actually, on 30 May, Di Tella; the chief of [the Foreign Ministry] staff, Andres Cisneros; UN Secretary General Butrus Butrus Ghali; and a delegation of Canadian military officers met at the Foreign Ministry to discuss Argentine participation in the "international peace" operations in the Middle East. At this meeting, the minister championed Iranian President 'Ali Hashemi-Rafsanjani's "moderate line" and harshly criticized the UN military cooperation program, although he approved the initiative of having Argentine Armed Forces troops enlisted and specially trained within the contingents of "blue helmets."

**In Defense**

Nevertheless, Defense Minister Erman Gonzalez is more cautious. He told UN Secretary General Butrus Butrus Ghali that he is not willing to send 100 officers to the "blue helmets" contingent stationed in the Middle East, claiming a lack of funds for normal Armed Forces tasks and even fewer funds to finance with additional funds—in addition to those already allocated (\$9 million for every six months)—new military expeditions abroad. In this regard, the Argentine troops recruited by the United Nations are distributed as follows: six officers in the Golan Heights, 15 in Angola, 15 in Western Sahara, 37 in Central America, two in Cambodia, 873 in Croatia, and seven on the Iranian-Iraqi border.

The UN secretary general, in turn, advanced two issues that are not easy at all:

- 1) Argentina must pay, before September, \$150 million—five times more than two years ago—to maintain the 52,000 "blue helmets" distributed worldwide.
- 2) The UN budget for this purpose was increased in 1992 from \$700 million to \$3 billion and there are many debtors. The United States alone owes \$800 million.

In a nutshell, these issues—so to speak, the less important ones—serve to increase the tensions in the foreign policy of Dr. Menem's government, although it cannot be established here which is the egg and which is the chicken.

**BRAZIL****CNEN To Close Santo Amaro Nuclear Plant**

PY1706155792 Sao Paulo O ESTADO DE SAO PAULO in Portuguese 6 Jun 92 p 10

[Text] Rio de Janeiro—The Santa Amaro Plant (Usam) [Usina de Santo Amaro], which is under the control of Nuclemon Minerio Quimica Ltda. [Nuclebras Monazite and Associated Elements Ltd.], in the southern Sao Paulo district of Brooklin, will be officially closed on 8 June by the

National Nuclear Energy Commission (CNEN). Usam processed monazite sand, which contains thorium and rare soils [terras raras], and traces of uranium, ilmenite, and zirconium.

Full to the roof with cake-2 [torta 2], uranium concentrate, and thorium, the plant has not really been working for months because Nuclemon could not find purchasers on the international market for its products.

A secret January 1990 report indicates that Usam was operating with levels of radiation higher than those permitted by the CNEN or by the International Atomic Energy Agency, which is headquartered in Vienna, Austria. Nuclemon comes under the control of the CNEN, which at that time said that Usam was functioning within the appropriate security guidelines. When he took over the post of executive director of the CNEN, Physicist Anselmo Paschoa

admitted that Usam did not have rigorous security controls so the CNEN ordered the transfer of a part of the production to the Pocos de Caldas Industrial Complex (CIPC) in Minas Gerais State. The CIPC stored the product outside until Minas Gerais courts ordered the construction of appropriate warehouses in which to store it. The CIPC produces yellow cake [two preceding words in English] (uranium concentrate), and its activities are also practically paralyzed due to the lack of purchasers.

With the closing of Usam it is possible that its products and rejects will be transferred to the CIPC and to the Nuclemon unit in Interlagos, a district in the southern area of Sao Paulo City. Nuclemon is a subsidiary of Nuclear Industries of Brazil, formerly Nuclebras [Brazilian Nuclear Corporations Inc.].

## ALGERIA

**Nuclear Technology Development Center Viewed***92WE0498Z Algiers LE SOIR D'ALGERIE in French  
25 May 92 p 16*

[Article by Naguib Hammouche: "Nuclear Technology in the Service of Medicine"; first paragraph is LE SOIR D'ALGERIE introduction]

[Excerpt] Scientific technology in the service of medicine and industry is an unavoidable necessity in this 20th century. Studying nuclear technology and its applications enables one to harness its energy; to deepen one's knowledge of the technology and of the ways it can be used.

Algiers—Located at No. 2 Frantz Fanon Boulevard is the headquarters of the Center of the Development of Nuclear Technologies (CDTN), which was established by Decree No. 88.59 dated 22 March 1988. Its task is to promote research, development, and application testing in connection with radioisotopes and nuclear physics, chemistry, and radiology.

Other tasks have also been assigned to it, examples being the design and development of technological apparatus and instrumentation devices specific to nuclear technology and biotechnology. [passage omitted]

## INDIA

**U.S. Trade Sanctions on Space Program Viewed****Seen as 'Hegemonistic'***BK2206111792 Delhi All India Radio General Overseas  
Service in English 1010 GMT 22 Jun 92*

[Commentary by S.C. Bhutt, former director of All India Radio's General News]

[Text] A few weeks ago the United States had failed in stopping the Russians from selling cryogenic engines to India for her space research program. The Russian Republic, struggling as it was against tremendous economic odds, chose to stand by its commitments to India, notwithstanding Washington's threat of withholding economic aid. After that failure of the American arm-twisting past time, India successfully launched its ASLV [Augmented Satellite Launch Vehicle] rocket as part of its space research program. That seems to have infuriated Washington into imposing fresh curbs on India. The Commerce Department of the United States has issued orders banning sales, except under its specific authorization, of materials that could be useful in India's ongoing space launch vehicle program.

The cold war may have ended and Washington's main rival in the world, the Soviet Union, may have disintegrated. But habits die hard. So the United States continues to practice its strong-arm tactics. It cannot view with equanimity the economic and technological growth of other nations like India. It believes in its own hegemony and would like the world to revolve around Washington. So, the United States has continued to thwart or seeks to thwart India's space research program. How important is it for India to develop space technology for weather forecasting, telecommunications development, and the mapping of resources, an advanced nation like the United States cannot understand. For instance, space technology has helped India recently to establish that the green cover of the soil has actually increased—marginally, of course. This is contrary to the

prevalent belief encouraged by amateur environmentalists that the green cover is thinning.

The United States has been known for taking a narrow, self-centered view of world events. In 1969, it helped disgruntled elements in Cambodia overthrow Prince Sihanouk. After 22 years were gone and millions of Cambodians were massacred by those who often received support from Washington, the wheel turned full circle. Washington had to help ensure the return of Prince Sihanouk at the helm in Cambodia. Likewise on Afghanistan, the United States piled the so-called mojahedin—holy warriors—with arms and cash to fight Dr. Najibollah's government. Everybody hopes peace would now prevail in Afghanistan, but only a highly sanguine person would say it does.

The American approach to the growth of technology in the developing countries is highly discriminatory, unjustified, and hegemonistic. India has strongly reacted to the latest sanctions by Washington. The official spokesman said in Delhi on Wednesday [17 June] that India would not be deterred by the U.S. pressure tactics from pursuing its peaceful research and development efforts in the area of space technology. By coincidence, the chairman of the Indian Space Research Organization—ISRO—Dr. U.R. Rao, was speaking in New York in a UN body on the very subject when the United States chose to impose its sanctions. Reacting vigorously, Dr. Rao said the American embargoes were unjustified and unreasonable. He pointed out that the cold war had ended and yet the United States was imposing sanctions against nations trying to develop their own technology for peaceful uses of space. For some time now, India has been striving to build bridges of friendship and cooperation with Washington. Despite such pressure tactics, India went ahead and conducted joint naval exercises with the section of the American Navy in the Indian Ocean. The bilateral talks held last week with the Americans in Delhi are another proof of India's mature outlook.

**Linked to Non-Membership in MTCR***LD2006123292 Tehran IRNA in English  
1046 GMT 17 Jun 92*

["Why India Should Not Join the MTCR?"—IRNA headline]

[Text] New Delhi, June 20, OANA-IRNA—Some strategic analysts believe that the punitive trade sanctions imposed by the U.S. Government on the Indian Space Research Organisation (ISRO), for the proposed cryogenic rocket motor deal with the Russian Glavkosmos, could have been avoided if India had become party to the multilateral Missile Technology Control Regime (MTCR), says R Ramachandram, writing for 'THE ECONOMIC TIMES'

Is it true?

To answer that question we need to look at the framework of the MTCR more closely than has been in evidence in various commentaries that have been written following the recent developments relating to India. This raises the question: What is MTCR and what is meant by being party to it?

Formulated on April 16, 1987, and initially agreed upon by the USA and its six major trading partners (Canada, France, Germany, Italy, Japan and the UK), it consists of a set of common export policy guidelines applied to a common list of controlled items, called the annex.

These guidelines of the MTCR seek to prevent proliferation of missiles and delivery systems capable of carrying at least a 500 kg payload over a distance of at least 300 km.

These parameters, according to a US official statement, 'correspond to the weight of a relatively unsophisticated nuclear weapon'.

The MTCR is described as a 'voluntary arrangement among countries which share a common interest in arresting missile proliferation'. It is also not an exercise in keeping the 'have-not' countries from obtaining the same weapon systems for their own security that are enjoyed by the 'have' countries.

It is thus not a discriminatory arrangement like the NPT [Nuclear Nonproliferation Treaty].

A fact sheet released in 1987 stated that other countries capable of exporting missile related technology should be encouraged to 'adhere' to the MTCR guidelines and there seems to be a clear distinction between 'MTCR members' and 'MTCR adherent'.

Though a clear definition of an MTCR member is not available, that of an MTCR 'adherent' is.

According to the U.S. Government's National Defence Authorisation Act (NDAA), which provides for some exemptions for MTCR adherents from punitive actions, an MTCR adherent means "a country that participates in the MTCR or that, pursuant to an international understanding to which the U.S. is a party, controls MTCR equipment or technology in accordance with the criteria and standards set forth in the MTCR".

This definition is centred around the U.S. perception, but since the U.S. is the mastermind behind the MTCR, this is likely to be the consensus definition of all the members.

In light of this it does not seem possible that India, if it so wishes, can become an MTCR member. But can it become an adherent? The NDAA also refers to the 27-nation Nuclear Suppliers Group (NSG).

The NSG was formed in 1975 after the Pokharan explosion-the first of India's nuclear tests, and comprises most of the world's major suppliers of nuclear equipment who are also NPT Nuclear Nonproliferation Treaty signatories.

The NPT in itself does not require its signatories to institute specific export control measures except as implicit through treaty commitments.

The NSG met for the first time after its inception in May 1991. It announced recently on April 3, a set of guidelines putting limits on exports of nuclear-related 'dual-use' items.

Clearly, there is no question of India being admitted into the NSG unless it signs the NPT which is, however, ruled out.

What the U.S. demands is that (free world) countries like India should upgrade national export controls, licensing procedures and enforcement capabilities to include some or all of the characteristics of an effective 'Western European style' export control system.

What this exactly means is unclear. Through the 1984 Indo-US memorandum of understanding, the U.S. Government has got some procedures instituted in India in return for access to some high technology items.

But these have not been all non-intrusive. U.S. observers have been involved in some cases, while in others U.S.

personnel have been stationed for on-site inspection (Cray Supercomputer for weather-forecasting, for instance).

The question, therefore, is how serious are such intrusions and whether India is prepared for such monitoring in return for becoming an MTCR adherent.

What does this mean for India?

Going by available evidence, India could end up being a loser for it could mean dismantling some of its programmes which are perceived by the U.S. and other Western nations to be linked to missile development.

According to the MTCR, for items of greatest sensitivity in the annex (category I-cryogenic motor belongs under this), 'there will be a strong presumption to deny such transfers' except on rare occasions where some bilateral assurances between governments ensure that the item will be used only for stated end-use.

Also, the NDAA sanctions do make a distinction between an MTCR adherent and a non-adherent. Sanctions can be waived in case such entities (supplier and receiver) are located in MTCR adherent countries.

While one could argue that India could become an adherent and give such assurances, India may not really stand to gain in terms of technology access and freedom to pursue strategic RD programmes.

The countries whose individual entities have been sanctioned against under the NDAA, like ISRO and Glavkosmos, have been China, Pakistan, South Africa, North Korea and Iran. (the Isro-Glavkosmos deal seems to be the first case of ex-ante sanctions before the transfer actually took place.)

Lifting of sanctions against two Chinese companies for transfer of missile technology to Pakistan is under consideration after China's promise in Feb. 1992 to adhere by the MTCR guidelines.

For countries which are not party to international agreements but enter into bilateral agreements over national security and foreign policy concerns, the NDAA grants treatment exports of missile related technology to such countries as if they are MTCR adherents.

In fact, U.S.'s national security and foreign policy interests in the Middle East would seem to be the main rationale for Israel being an MTCR adherent.

But the latest move by the U.S. Bureau of Export Administration, which requires U.S. exporters to obtain validated licences (VLS) to export any item to missile related projects in 20-odd countries, appears to be somewhat absurd. The countries whose projects have been listed include Brazil, China, Argentina, Pakistan, North Korea, Iran, South Africa and India.

As regards the last five, sanctions are already in force and the move can perhaps be rationalised. But Argentina is an MTCR adherent and has abolished its Condor Programme, and Brazil and China have agreed to abide by MTCR guidelines.

This means that even if a country is an MTCR adherent, but does not fit into us foreign policy designs, the United States can impose trade and export sanctions and deny technology.

Therefore, even if India became an MTCR adherent, since it is not a U.S. satellite and neither an Israeli, not only may it forego missile development programmes but also ISRO's

launcher programmes. Moreover, there is no guarantee that it will gain access to technology.

### **Rao Reaffirms Intention Not To Sign NPT**

#### **Underlines Peaceful Purposes**

*BK2106084292 Delhi All India Radio Network in English 0245 GMT 21 Jun 92*

[Text] The prime minister has reaffirmed that India will not sign the Nuclear Nonproliferation Treaty as it is discriminatory in nature. In an interview to a group of Japanese journalists in New Delhi, Mr. Narasimha Rao said India believes in the total elimination of nuclear weapons. He said the country's missile development program is entirely for peaceful purposes. Mr. Rao said the economic reforms introduced by his government have been well received. He said economic liberalization is a continuous process which will take time. On his coming visit to Japan, the prime minister said he will seek to gain better understanding with Japan and identify areas of common interest and mutual benefit.

#### **Calls for Modified NPT**

*BK2406125492 Delhi All India Radio Network in English 1230 GMT 24 Jun 92*

[Text] India today called for a modified Nuclear Nonproliferation Treaty aiming at a time-bound elimination of all nuclear weapons. Addressing a press conference in Tokyo this evening, the prime minister, Mr. P.V. Narasimha Rao, said what is required now is the review of the present treaty and not the signing of it. Mr. Rao, who also had informal talks with Indian newsmen, categorically said there was no pressure for signing the treaty from Japanese leaders during his talks with them in Tokyo. He said nonproliferation should be considered in general applicable to all.

Replying to questions, Mr. Rao said India favors a new world order with more democratized political decisions, equity, safe environment and cooperation. On Kashmir, he said India considers the question as closed forever. Describing his talks with Japanese leaders and industrialists as fruitful, Mr. Rao hoped that his visit will open a new chapter of more intensive cooperation between New Delhi and Tokyo.

Speaking at a dinner hosted by the president of the Indo-Japan Association, the prime minister said the closer relationship between India and Japan will promote the unity of a resurgent Asia. Mr. Rao said that a new world is emerging and all have to keep pace with the changing situation. He hoped that the association will be able to fulfill its new role.

The prime minister also had an audience with Emperor Akihito and the two leaders discussed matters of mutual interest. Mr. Rao renewed the invitation to the prince and princess to visit India.

### **Japan Denies Linking Aid to Signing of NPT**

*BK1906165492 Delhi All India Radio Network in English 1530 GMT 19 Jun 92*

[Text] Japan today denied that it has linked its development assistance to India with the signing of Nuclear Nonproliferation Treaty. Reacting to a report from Tokyo, the minister for economics in the Japanese Embassy, Mr. (R. Ishui), told newsmen in New Delhi that there is no such indication from his government. Describing the report as a distorted version

of Japan's policy, he said his country finds no specific development in the field of nuclear capability with India to warrant such linkage. On the other hand, he said that the new liberalized economic policy in India has become a strong point for strengthening bilateral ties.

The External Affairs Ministry spokesman also told newsmen in New Delhi that the report on the linkage is not based on any authenticated information.

### **Bombay Nuclear Reactor Resumes Operations**

*BK1806033692 Delhi All India Radio Network in English 0245 GMT 18 Jun 92*

[Text] The Bombay-based Dhruva atomic reactor resumed its operation after a week. The operations were suspended because of labor strike. The operation of the 40-megawatt Cirus atomic reactor, however, still remains suspended. Negotiations are continuing with the workers to resume the functioning of the reactor.

### **PRC Nuclear Tests in Wake of USSR Decline Eyed**

*BK2106143192 Delhi THE HINDUSTAN TIMES in English 12 Jun 92 p 11*

[Article by R.R. Subramaniam: "China's Motive for N-Test"]

[Text] China detonated a massive nuclear device even before Indian President R. Venkataraman had left its territory. A similar insensitivity was demonstrated during the visit of Mr Atal Behari Vajpayee as Foreign Minister. At that time China chose to attack Vietnam. Indians must realise once and for all that China has never recognised India as a power in the same league as itself. It regards itself as a superpower capable of influencing events globally. At the height of the cold war in 1958 the Soviet Union detonated a huge hydrogen bomb with a yield of 60 megatonnes. This test was symbolic in that it proved to the Americans that Russia aims to challenge America at least in the nuclear field.

Now that Russia has virtually lost control over its other republics, China rushes to create the impression that it is now the second superpower. Since its economy is more stable than that of Russia it has the necessary infrastructure to support its goal. India has chosen to dither on the nuclear weapons issue as was evidenced by its classification of its first nuclear detonation in May 1974 as a peaceful nuclear explosion (PNE). In 1965, Dr Bhabha had laid the blueprints for a subterranean nuclear excavation project (SNEP). But the sad demise of Dr Bhabha caused India to invoke weak-kneed responses to China's atomic weapons programme. Since then no clarity of purpose has been demonstrated. China detonated its first atomic bomb satellite in 1970. Since then it has made several strides in its ballistic missile programme.

In May 1989, Indian scientists of the Defence Research and Development Organisation (DRDO) launched a 1000-km missile and chose to call the venture a technology demonstrator experiment. This kind of approach only succeeded in demonstrating once again the dualistic attitude of our leadership. Had India come out openly in regard to the detonation of a nuclear device in May 1974 and forged ahead with the missile programme, the bargaining leverages would have been that much greater. Instead a confused approach to national security goals has only ended up by

giving China the advantages. Beijing's leaders had understood the utility of nuclear weapons and missiles for political purposes. Not only that it was able to provide launch carrier facilities for commercial purposes to certain countries. The missile technology control regime (MTCR) is but one manifestation of the Western industrialised countries to deny rocket technology to developing countries.

China did not join the MTCR, like Russia. American pressures through other means continued to be placed on both these countries, however. The most recent manifestation of this pressure has been Washington's objection to sale of cryogenic engines to India. India has chosen to upgrade its relationship with Washington after adopting a policy of market reform and economic liberalisation.

The Bush Administration has after the end of the cold war put nuclear weapons and ballistic missile control on top of the agenda of U.S. foreign policy. For this reason it has chosen to apply the provisions of the MTCR, which does not recognise the difference between a rocket for peaceful purposes and that of the uses to which a ballistic missile is put. The attitude of the Bush Administration towards China has always been ambivalent, this even after the Tiananmen incident of June 1989. China has been able to export missiles of intermediate range like the CSS-2 to Saudi Arabia, an ally of the U.S. It is ready to export the M-11 missiles to Pakistan, on whose territory at Havelian, it has also set up a rocket propellant factory. This is not to suggest that the U.S. has not tried to thwart China from doing so. The pressure on Beijing has not been as intense as it was on India which was forced to cancel the sale of a nuclear reactor to Iran, however.

By contrast, China was able to transfer the designs of its fourth atomic bomb test (which used and enriched uranium in an implosion mode) to Pakistan. There have been several unconfirmed reports to suggest that a Pakistani atomic bomb has been tested on Chinese territory.

China acceded to the NPT [Nuclear non-Proliferation Treaty] this year only as a nuclear weapons state (NWS) because it detonated a nuclear device before January 1, 1967. It is as if it wanted to reiterate its status that it has detonated such a massive nuclear explosive device, and plans to have a second one very soon. In the past, the frequency of atomic tests by China has been rather low, but lately, the dramatic changes in the global environment have caused Beijing to reiterate its military might. India has no option then but to go ahead with several more tests of the Agni. There is no alternative to standing on one's own feet and ISRO's [Indian Space Research Organization] scientists are more than capable of producing the GSLV rocket much like China's Long March rocket that launched its communication satellites. Perhaps, collaboration in space is the next logical step for India.

## IRAN

### Israeli Claims of Iran's Nuclear Potential Eyed

#### Seen as 'Propaganda Campaign'

NC2106121792 Tehran TEHRAN TIMES  
in English 17 Jun 92 p 2

[Text] The Israeli air force commander states that Tel Aviv should block the entry of nuclear weapons into the Middle East and even take military action for this purpose.

According to the French news agency from Jerusalem, General Herzl Bodinger, talking to a group of journalists on military issues, said that Israel should use all military and diplomatic means to stop the flow of atomic weapons to the Middle Eastern region. He claimed Iran was the greatest buyer of arms in the region, and that she is trying to acquire nuclear weapons. He added that the Israeli army has to have information on the military capability of Iran, and study ways of countering Iran's power.

All in all, the remarks of the high-ranking Zionist official contains no new points. In fact this is part of the propaganda campaign that has been launched against Iran in the past 12 months, after the war of oil in the Persian gulf.

The propaganda campaign pursues two main objectives;

1. Frightening Iran's neighbors, specially the southern Persian Gulf littoral states, of Iran's "growing military might." This is in line with the general policy of preventing any kind of rapprochement from taking shape between the Islamic Republic and its neighbors, and encouraging Iran's southern neighbors to enter into a military alliance with the West and in particular with the United States for the ostensible purpose of ensuring their security against military threats from Iran.

2. To aggrandize military threat from Iran as a means of justifying Israel's aggressive policies in the Middle East. The Israeli regime expresses concern over the proliferation of nuclear arms in Middle East, but it apparently reserves for itself the right to possess the most destructive nuclear weapons which it procures with the aid of its Western allies. What is worse, this regime has often demonstrated its total disregard for international laws and regulations and especially the resolutions of the Security Council. What power or authority in the world would be in a position to punish Israel if it one day created an atomic catastrophe? Apparently the Security Council, which according to the charter of United Nations is entrusted with such a task, is not in a position to perform the job, since it has been even unable to enforce the implementation of resolutions Nos. 242, 338, and 425. In case such an atomic holocaust is created by Israel, Washington will undoubtedly prevent the Security Council from passing any resolution against Israel, and even if any resolution is ratified, it will have to be shelved next to the other resolutions.

As was repeatedly declared by Iran, and was further confirmed by the observers from the World Atomic Organization [as published], Iran is not in possession of nuclear arms, and all research into the atomic field being conducted in this country is simply for the purpose of peaceful application of atomic energy.

Iran supports nuclear and chemical disarmament on the international level, and as a preliminary stage wants the Middle Eastern region to be free of all atomic and chemical weapons.

### Velayati Denies Rumors

LD2106113892 Tehran Voice of the Islamic Republic of Iran in English 1030 GMT 21 Jun 92

[Text] The Islamic Republic of Iran's foreign minister, 'Ali Akbar Velayati, has rejected the rumours that Iran is trying to produce a nuclear bomb by the end of this century.

Addressing reporters Mr Velayati said: We categorically deny these accusations. He said Iran's gates are open to



international inspectors to see the country's nuclear facilities, and the International Atomic Energy Agency [IAEA] recently stressed that Iran does not have the needed hardware and equipment to produce nuclear bombs.

He added: One expects Israel to provide the IAEA with such possibility to inspect its installations.

Mr. Velayati has already said in the Geneva conference on disarmament that Israel now has nuclear warheads. He added: The Jewish government's refusal to sign the treaty on nuclear proliferation is a serious issue for the Middle East. He said Israel must destroy its chemical and biological weapons. Mr. Velayati added: It is then that we can move towards a Middle East free of all mass killing weapons.

Velayati once again repeated Iran's invitation and called for destruction of all nuclear weapons throughout the world by the year 2,000.

### IAEO Refutes Claim

*LD2106215392 Tehran IRNA in English  
1621 GMT 21 Jun 92*

[Text] Tehran, June 21, IRNA—Iran's Atomic Energy Organization (IAEO) in a statement here today refuted Israel's claim that Iran enjoys nuclear potential.

On the contrary, added the statement, the Zionist State of Israel which 20 years back achieved the capability for producing nuclear arms is a "threat" to the region for its having a huge arsenal of ballistic missiles.

It severely condemned the Israeli Air Force chief's recent threat to attack any country which introduced nuclear weapons into the Middle East. The Israeli Commander Herzl Bodinger had also named Iran as a country to have nuclear capability "within a decade if not stopped."

The IAEO said the goal of the U.S. and Israel behind their latest propaganda tirade was to exert political pressure on the Islamic Republic.

"They are trying to throw obstacles on the way of Iranian officials and make obstructions in their efforts to implement infrastructural projects, including setting up of atomic power plants to secure domestic-required energy."

The organization said that Iran has repeatedly indicated in its statements and press interviews that it never intends to possess nuclear weapons. As the documents and evidences in the International Atomic Energy Agency (IAEA) testify, it added, Iran has been one of the backers and proponents of resolutions calling for global nuclear disarmament, especially in the Middle East.

Evidently, the IAEO statement said, it is for 20 years that the usurper regime of Israel has the capability to produce nuclear arms and enjoys great ballistic missile arsenals that is a threat to the region. But, Iran is basically for the peaceful utilization of the nuclear capability and never intends to produce them, it added.

"Iran believes that all these weapons should be annihilated and to have a region free of nuclear arms. Because the experience of the disintegration of the East bloc showed that the former Soviet Union with more than 30,000 nuclear warheads could not gain any concession," it added.

The statement said that Iran is a signatory to the non-proliferation agreement and sticks to the international regulations on inspection of nuclear installations. But it

regretted that the Israeli Government, despite its membership in IAEA, has not yet joined any of the IAEA resolutions and international agreements. Israel is even backed by all-out Western support, in spite of its non-peaceful nuclear programs.

It noted that in the Middle East, Israel was now the sole producer of lethal nuclear weapons and that this was in contradiction with the important resolutions issued by the IAEA on the policy of building a nuclear free zone.

The statement urged Israel that instead of creating international atmosphere and poking its nose into the affairs that based on the international protocols and agreements were not related to it, to execute the resolutions of the United Nations.

It should also respond why it does not accept the non-proliferation treaty and does not permit the IAEA inspection team to inspect its nuclear installations, added the statement.

It concluded that Israel was the sole Middle East nuclear power that was against the IAEA inspection and more importantly neither the Western governments nor the United States had raised any objections against that regime.

### PAKISTAN

#### Foreign Affairs Official on Nuclear Issue

*BK2506030892 Islamabad Radio Pakistan Network  
in Urdu 0200 GMT 25 Jun 92*

[Excerpt] Secretary General Foreign Affairs Akram Zaki at a meeting in Islamabad yesterday briefed the visiting Australian parliamentary delegation on various aspects of Pakistan's foreign policy, particularly nuclear nonproliferation, Kashmir, Afghanistan, Pakistan-U.S. relations, and GATT.

On the nuclear issue, the secretary general categorically stated that Pakistan supports nuclear nonproliferation and disarmament both at regional and global level. Pakistan has put forward a number of proposals since 1984 for the establishment of a nuclear-weapons free zone in South Asia. In this connection, he referred to the proposal put forward by the Pakistan prime minister in June 1984 to convene a five-nation conference to consider the prevention of a proliferation of nuclear weapons and all other types of weapons of mass destruction. Unfortunately, India has not responded to these proposals and no progress has been made on the issue because of India's negative stand. [passage omitted]

#### Stages in Nuclear Development Recounted

*92WP0235A Islamabad THE MUSLIM  
in English 25 May 92 p 10*

[Article: "Twenty-Five Years of Research and Development at PINSTECH"]

[Text] Pakistan Institute of Nuclear Science and Technology (PINSTECH) was established in the early 60s to acquire capability in R&D in the field of Atomic Energy. Over the years, PINSTECH has emerged as the premier research institute of the country. It has striven to keep pace with the latest trends in the fields of Nuclear Physical, Nuclear Chemistry, Environmental Science, hydrology, Nuclear Engineering, Computers, Materials Science and Radioisotope Production and Application.

The central research facility at PINSTECH is the Pakistan Research Reactor (PARR-1), which went critical in December 1965 and attained its full power of 5 MW in June 1966. Since its installation PARR-1 has undergone many modifications to enhance its efficiency and usefulness. In 1985, a major project was undertaken to modernize its control and instrumentation system and to fabricate a new panel was installed in 1986 [sentence as published]. This year witnessed the culmination of the efforts of our scientists and engineers to completely renovate the whole facility of PARR-1 and upgradation of its power from 5 MW to 10 MW and conversion of its core from highly enriched uranium (HEU) to low enriched uranium (LEU) fuel. This conversion was necessitated because of the nonavailability of the highly enriched uranium from the suppliers. By the grace of God, the upgraded PARR-1 went critical on 31 October 1991. It has attained its maximum power in May 1992. To supplement the research activity and training in addition to PARR-1, a Miniature Neutron Source Reactor (MNSR) called PARR-2 with Reactor Power of 30 kW went critical on November 14, 1989. The civil construction, water purification and radiation monitoring systems of PARR-2 were indigenously designed and installed.

The history of the development of industry and agriculture shows that the process of change in the direction of great efficiency and consequently greater profitability is a direct consequence of the application of science. As a result of this interplay between science and industry, research and development has become the very essence and spirit of science. This fact has not been entirely lost on PINSTECH where a very vigorous effort has been put in conducting basic research.

The earlier research work at PINSTECH centered around PARR-1. This started with nuclear fission studies together with an analysis of reaction mechanism and nuclear structure. Then followed experiments on using the techniques of neutron capture gamma ray spectroscopy to study the intricacies of the nuclear structure. With the acquisition of a triple-axis neutron spectrometer, thermal neutrons were used to study the structure and thermal vibrational spectra of condensed materials. Texture studies of industrially important materials like aluminium and copper were also carried out. Materials like Zircaloy, stainless steel, etc. which develop micro defects in the reactor environment are studied with high precision using electron microscopes having magnifications of the order of 250,000. The same facility has also been employed to analyse samples provided by other establishments. The corrosion study of materials also subject to the reactor environment are undertaken by the Mossbauer technique. A 14 MeV neutron generator is used for investigating nuclear reactions and their cross sections.

In Pakistan, it was at PINSTECH where for the first time we made the compounds with superconducting temperatures as high as 140 degrees K. Pakistan has also designed and fabricated a 100 KeV charged particle accelerator. This is now being upgraded and modified to a 250 KeV accelerator. The experimental work is complemented by a sound theoretical endeavour in nuclear, atomic, plasma and condensed matter physics.

A harmonious blend of applied and basic research has been achieved by the development and application of Solid State Nuclear Track Detectors. PINSTECH has played a pioneering role in the worldwide development of these detectors and has applied them in the diverse fields of Nuclear

Physics, Radiation Dosimetry, Uranium exploration and Earthquake prediction. This Laboratory is one of the top 10 leading laboratories of the world in this field.

The chemistry programme around the reactor includes neutron activation analysis, nuclear chemistry, and radioisotope production. In nuclear technology, especially for uranium dioxide used in the fabrication of nuclear fuel, the composition of impurities at parts per million and parts per billion has to be determined. In view of this, a number of analytical facilities were established at PINSTECH including neutron activation analysis, mass spectrometry, atomic emission spectroscopy, atomic absorption spectroscopy, molecular absorption spectroscopy, liquid chromatography and electro analytical techniques. The analytical techniques developed for the measurement of trace elements have also been utilized for the analysis of agriculture, biological and the environmental materials.

Radioisotopes are extensively used in nuclear medicine for diagnostic and therapeutic purposes, as well as in agriculture, industry and scientific research as radiation sources and tracers for studying various problems during the past many years. In order to provide a regular supply of these radioisotopes to the nine Atomic Energy Medical Centres in the country, major facilities were established for the production of a number of medium and short lived radioisotopes.

The application of radiation and isotopes in industry and hydrology is also strongly pursued at PINSTECH X-Ray and gamma-ray. Radiography is applied for non-destructive testing. Some important projects carried out include the silting studies of Karachi harbour, seepage from Tarbela Dam and canals, detection of leaks in underground water network of Shalimar Garden and identification of damaged tube in a heat exchanger in national refinery.

Gamma radiation, which are lethal to micro-organisms can be effectively utilized for sterilization of medical and agricultural products. The gamma radiation facility at PINSTECH has been used to develop suitable techniques for the sterilization of various medical products such as surgical gloves and pharmaceutical products. This research led the establishment of a commercial scale plant at Lahore for the sterilization of medical products.

An institute for nuclear science and technology would be incomplete without an adequate research and development programme in the field of nuclear fuel cycle. With the refusal of Canada in 1976 to supply fuel for the Karachi Nuclear Power Plant (KANUPP), technology for the production of reactor grade  $UO_2$  [Uranium dioxide] fuel was perfected, and the fuel for KANUPP was manufactured at PINSTECH. Fabrication of fuel on factory scale was then done at another appropriate place in Pakistan. Zirconium based alloys are used as fuel cladding and structural materials for nuclear reactors. However, Zirconium meant or nuclear application must be free from Hafnium which occurs with it in the mineral [sentence as published]. For this purpose, a pilot plant was locally designed, fabricated and commissioned for the separation of Hafnium from Zirconium. Metallurgical laboratories have been set up for developing alloys for special application in nuclear as well as nonnuclear fields.

High performance ceramic material, sialon and its cutting tool tips were fabricated and tested which showed satisfactory performance in cutting stainless steel. A pilot plant for the production of Zirconium sponge from the purified Zirconium Oxide is now operational.

All health related problems arising from radiation exposure of the scientists working in the laboratories are carefully monitored. A periodic sampling and radiometric analysis of the media like air, diet of local population, surface and ground water is carried out to determine any contamination. Radiation protection and personnel dosimetry services are also provided at PINSTECH. The institute is also providing radiation dose measuring facilities to radiation workers in industry and other such users in the country.

PINSTECH has excellent supporting facilities for its elaborate R&D programme. Specialized electronic equipment ranging from the simplest to the most sophisticated are being fabricated and repaired, this includes the production of printed circuit Boards (PCB's) as well. Dedicated and general purpose computers are now a part and parcel of every laboratory at PINSTECH. Besides the interactive terminals at the main computer centre itself, a network of terminals provides easier access to the computers. PINSTECH is well known in the country having a know-how for carrying out repair and maintenance work on computers.

It is of critical importance that a scientist at every stage of his work should have access to the latest scientific literature pertaining to his discipline. It was for this very purpose that the Scientific Information Division (SID) was created at PINSTECH. The total number of books in the library is about 31,000. About 500 scientific journals on various topics of interest are regularly subscribed every year. About 75,000 new reports and patents are added annually. This collection now stands at about 900,000. Selective Dissemination of Information (SDI) from the IAEA, is provided to all scientists on request. In addition, on-line searching of INIS data base at Vienna via telex is also undertaken when required. An electronic mail facility linking PINSTECH with the rest of the world is expected to be functional soon.

To provide a continuous corps of trained manpower to various projects of PAEC [expansion not given], regular M.Sc. courses of Nuclear Engineering are conducted by the Centre for Nuclear Studies (CNS). This M.Sc. degree is awarded by the Quaid-i-Azam university. For the technical staff a regular Basic Nuclear Orientation Course has now become a compulsory part of their training. A number of other long and short term courses are also conducted and are repeated in accordance with the requirements of personnel in the appropriate categories.

Many PINSTECH scientists have attained international recognition and have played a major role in establishing international contacts. Right from its inception, PINSTECH has been maintaining and continuously encouraged the sister-laboratory arrangements with research institutes of other countries. Senior scientists from PINSTECH go on post-doctoral visits to these laboratories and scientists from advanced countries reciprocate these visits by participating in the research activities at PINSTECH. Recognizing the international standards of our laboratories IAEA (Vienna) has awarded several research contracts to the scientists of PINSTECH.

To keep the scientific community of the country abreast with the latest developments in science and technology, PINSTECH has successfully, organised a number of conferences both at the National and International level. The Research and Development has matured to a stage that PINSTECH scientists have been regularly presenting their original research papers in international conferences. Some have been invited to preside over the sessions and give review talks. They have also been invited to advanced

countries for delivering research seminars in foreign laboratories. Several research projects are being undertaken in collaboration with well-known scientists of other countries on equal footing.

The scientists of PINSTECH have been regularly invited to the advisory meetings of the International Atomic Energy Agency (IAEA) which plans the future course of action of scientific programmes of this organization, and some have worked as IAEA (UN) Technical Experts in other countries like Chile, Indonesia and Vietnam, etc.

PINSTECH has undeniably the largest collection of highly trained and research oriented scientific manpower in the country. Because of the sound R&D training imparted at PINSTECH, its scientists are in great demand not only in the various projects of PAEC, but also in other research organizations of the country. Many key positions in scientific organizations in the country such as PCSIR [Pakistan Council on Scientific and Industrial Research], NIE [expansion not given], Silicon Technology, A.Q. Khan Laboratories were taken by scientists trained and groomed at PINSTECH. They have therefore played a key role in the success of these organizations.

Scientists at PINSTECH have been more than willing to help the universities in their teaching and research. Universities which lack teaching and research facilities have benefited from the visits of PINSTECH scientists, while scientists from the universities regularly visit PINSTECH during their vacations for doing research in collaboration with research groups here and in this way they remain active research workers.

The research potential at PINSTECH has also been utilised for the benefit of several other organizations in the country such as Pakistan International Airlines, Water and Power Development Authority, Department of Irrigation, Hydrocarbon Institute, Department of Archaeology, etc. Several industries particularly paper industry, steel industry and wire and cable industry have also benefited from the technical advice and technical help extended by PINSTECH in overcoming the problems faced by them.

It would not be out of place to claim that on the national front the scientists of PINSTECH have been doing their best to help solve the technical problems faced by these organizations.

In the end, we would like to quote Prof. Salam, "For any society, the problems of its agriculture, of its local pests and diseases, of its local materials base, must be solved locally. One needs on underpinning from a first class base in science to carry through applied research in these areas. The craft of applied science in a developing country is made harder, simply because one does not have available next door, men who can tell you what one needs to know of the basic principles, relevant to one's applied work." Much in the same vein, Prof. Ziman states, "Science based technology is not a lousy crop of rules of thumb, perfected by evolution over a long period, it is a delicate plant which thrives only when tended by mixed teams of experts, including those impractical specialists to whom the buck can be passed when fundamental principles are at stake." It is therefore evident that research and development is the heart of any successful technical enterprise and any neglect is bound to produce weakness in the overall performance.

As PINSTECH completes twenty-five years of its existence, an entire generation of scientists and engineers can look back with pride and satisfaction at their achievements. The

tender plant of science and technology that they planted and then guarded and tended so assiduously is now in full bloom. A younger enthusiastic crop of scientists and engineers is slowly sharing and taking over these onerous responsibilities and preparing to face the challenges of the twenty first century.

### **Role of Atomic Energy Commission Examined**

92WP0235C Islamabad THE MUSLIM  
in English 25 May 92 pp 12-13

[Article by Dr. Muhammad Jameel, director (Research & Planning): "PAEC on the National Scene"]

[Excerpts] Apart from promoting peaceful uses of atomic energy, the Pakistan Atomic Energy Commission (PAEC) has been making significant contributions to upgrade national academic and technological levels. The following overview provides a glimpse of the scope, extent, and varied nature of PAEC contributions to scientific and technological training, research and planning efforts in the country.

Since the mid-seventies, PAEC scientists have played an active role in the formulation of science and technology policy at national level. They have been institutionally and individually involved in conferences, workshops and discussions on various issues as well as in the preparation of different chapters of the policy document. In recent months, substantial input has been provided towards the S&T Five-Year Plan period by way of issue papers and participation in discussions and meetings, including the National Seminar organised last winter by the Planning Commission.

For the past 20 years or so, scientists and engineers from PAEC have also been associated with national energy planning. A long-term nuclear power programme was drawn up and, in particular, pioneering work was done for the Chashma Nuclear Power Project through its various pre-project and approval phases. In-house capability for energy modelling and systems analysis has been developed and made available to government agencies as well as organizations in the public and private sectors. Since mid-80's,

several in-depth studies have been carried out on behalf of the Planning Commission for the Five-Year Plans and also for a Long Term Perspective extending to the year 2008. [passage omitted]

The Commission takes a lead in disseminating technical expertise, acquired through R&D in its laboratories, for national benefit. A notable example is the indigenous development and fabrication of the laser range finder for defence forces. Experience in gamma radiation is being commercially exploited at Lahore for sterilization of medical and surgical goods. Use of this technique for preservation of food products, demonstrated in the laboratory, is being considered for introduction on pilot scale. Experience in computer hardware and software is extended to interested organizations in the country. Training and hands-on experience is offered in the techniques of radiography and non-destructive testing of welds, pipes, etc.

Precision and quality assurance are the hallmark of nuclear industry. These concepts, and a culture of quality consciousness, have been introduced in selected industrial units in order to promote indigenisation and self-reliance in Pakistan's nuclear power programme.

The Commission provides specialized scientific services to radiation establishments, university departments and technical institutes. These include scientific information, documentation and computerized literature search; micro-analysis and detection of substances down to nanogram level; provision of a film-badge service for the protection of radiation workers; metallurgical examination for detection of faults and fatigue study of movement of subsoil water through isotope techniques, etc.

In all these national endeavours, PINSTECH [Pakistan Institute of Nuclear Science and Technology] has played a central role. Basic expertise in most areas has been developed through research work at the institute. The accumulated benefit of the experience has then been shared with over a hundred organisations in the country, covering all important segments of the public and private sectors.

**U.S.-Russian Accord Welcomed by Gorbachev***TA1706112392 Jerusalem Qol Yisra'el  
in Hebrew 0905 GMT 17 Jun 92*

[Excerpt] Mikhail Gorbachev is today touring southern Israel. While touring Kibbutz 'En Gedi, he told our correspondent Dan Eshel that he welcomes the U.S.-Russian agreement to destroy two-thirds of the nuclear weapons in their possession. Dan Eshel is on the phone to report:

I asked Mikhail Gorbachev about the wisdom of the unilateral step taken by the superpowers—dismantling two-thirds of their nuclear weapons—before the rest of the world has taken a similar step. He replied: I am familiar with the issue. Even with only one-third of their present nuclear weapons, the Soviet Union [as heard] and the United States would still be strong superpowers. Such an agreement makes it possible to put the question of the nuclear disarmament of all the nuclear powers on the agenda. The position of the two superpowers enables the international community, the superpowers, and the United Nations to demand stricter controls on nuclear proliferation. Gorbachev added: I understand the fears that lie behind your question. [passage omitted]

**U.S.-Russian 'Accelerated' Disarmament Feared***OW2206164192 Moscow INTERFAX  
in English 1415 GMT 22 Jun 92*

[Transmitted via KYODO]

[Text] "An accelerated schedule of eliminating strategic nuclear armaments may prove detrimental for Russia," said Aleksandr Savelyev, a Russian expert in disarmament, vice-president of the Russian Institute of National Security and Strategic Studies and a member of the London Institute of Strategic Studies.

He told IF [INTERFAX] on Monday that he highly estimated the bracket agreement reached in Washington by Boris Yeltsin and George Bush, according to which the United States' and Russia's strategic nuclear arsenals will be cut down from the aggregate level of 21,000 warheads to 6,000-7,000.

Savelyev believes that Russia should be oriented to the year 2003, not the year 2000. Both of these time-tables were discussed in Washington. "Even in a normal economic setting, a seven-year schedule would be too tough for Russia." In the current situation such a schedule is simply unreal, he said.

See June 22's Diplomatic Panorama for complete interview with Alexander Savelyev.

**U.S., Russia Issue Joint Statement on Korea***LD1706222892 Moscow RIA in English  
2150 GMT 17 Jun 92*

[Text] Washington, RIA—The Russian Federation and the United States have taken note of the positive trends in strengthening the nuclear non-proliferation regime in Korea.

This is said in a joint Russian-American statement on the non-proliferation of nuclear weapons in the Korean peninsula issued on June 17 in Washington by the Russian and the U.S. presidents.

The two sides called for full implementation of the December 31, 1991 inter-Korean declaration on denuclearisation of the Korean peninsula.

The sides welcome ratification by the Democratic People's Republic of Korea of a verification agreement with the IAEA [International Atomic Energy Agency] and urge it to cooperate with the agency further with a view to putting its nuclear facilities under appropriate control, notes the Russian-American statement.

The summit participants consider that fulfillment by North Korea of all its commitments under the non-proliferation treaty and the joint inter-Korean declaration, including IAEA monitoring, will help finally to lay to rest international concern about the nuclear problem in the Korean peninsula.

**U.S.-Russian Coordinated Uranium Trade Sought***PM1706104192 Moscow ROSSIYSKIYE VESTI  
in Russian 15 Jun 92 p 3*

[Article by "Tekhsnabeksport" Vice President Arkadiy Chuvyn under the "Situation" rubric: "Uranium, Competition, and All the Consequences. What the U.S. Submission to the Russian Ministry Indicates"]

[Text] The U.S. Embassy in Moscow has sent a submission from the U.S. Commerce Department to the Russian Federation Ministry of Atomic Energy. The long and the short of it is that the Russian organization "Tekhsnabeksport," like representatives of five other former Union republics, is accused of dumping uranium output on the U.S. market. The ministry is notified that in response penal import duties fixed in line with a provisional decision at a maximum level of 115.85 percent could be introduced from 11 August. Consequently Russian uranium prices could soar to at least double their present level. Moreover, the customs service has stated that our output has basically been detained since March. It is not hard to see the threat this poses to us: We could sustain appreciable losses.

Although the decision has been made by the U.S. Commerce Department and the submission has been made not to the government but to one of our departments, the word "Russia" has been glimpsed alongside complaints about "unfair trade" in the Western press. Let us leave these generalizations to the conscience of the journalists and try to elucidate what is the real essence of the conflict that has arisen between the U.S. department and the Soviet ministry.

Let us begin with the main point: Was there any dumping? According to the Americans' definition, dumping takes place when imported goods are offered to the United States at "prices lower than fair prices." But how do they interpret fair prices? This is hard to answer. There is a concept that is generally accepted in world practice. Dumping means selling goods at a price lower than the cost price. We do not sell uranium so cheaply. For the information of those who do not know: The cost of producing uranium in our country is lower than in other countries. Therefore we can ask less for it than the Americans, for whom producing [sozdaniye] uranium works out more expensive. So what dumping are we talking about here? Who, by the way, is preventing our partners from establishing an equally efficient way of producing uranium?

Furthermore, it is impossible not to mention the current completely abnormal ruble-dollar exchange rate. It covers all our expenses and turns uranium into one of our most

profitable goods. Moreover, uranium prices also depend on contract terms. In the case of long-term contracts intended to run for many years the price is always higher since supplies are stable and guaranteed. Whereas in the case of short-term contracts, where it is a matter of individual purchases or covering requirements that arise suddenly, prices can be two or three times lower. We, of course, favor stable and long-term ties. Whereas U.S. dealers are offering us one-shot deals. But it is clear that even this does not suit them any more.

Finally, we have lost quite a few deals in the United States since U.S. businessmen refuse to do business with us because they say our prices are too high for them. This fact is true. Meanwhile, judging from items in the business press, other consignments of uranium are being sold in the United States at cheaper prices than ours.

So what is all this about dumping and "unfair trade," and why is action being taken against us?

The U.S. Commerce Department justifies its position by citing data submitted to it in a petition from the provisional committee of American uranium producers and the Oil, Chemical, and Atomic Workers International Union. Unfortunately, this is a lengthy and casuistically convoluted document from which we were unable to learn in clear terms what we had done wrong.

Our specialists are left similarly bewildered by the U.S. department's reference to the allegedly inadequate and insufficient information received from uranium producers and exporters in the former Soviet republics, including Russia. But, you know, we prepared this information together with a group of U.S. representatives who came to our country and fully approved it.

I think that the matter has little to do with these petty trifles which are very reminiscent of mere faultfinding. In fact the causes lie deeper. Let us take a quick look at recent history. We have been trading uranium for 20 years now. Our first contract was concluded with France in 1971. At that time, U.S. capital ruled the roost in the world market and it had the most efficient uranium production facilities at its disposal. Only by uniting in the early eighties were France, Belgium, Italy, and Iran (Eurodif) only able to build a commercial uranium enrichment enterprise. Germany, Britain, and the Netherlands (Urenco) in turn pooled their finances and scientific efforts and also began to produce uranium for sale.

Nevertheless, neither of these groups was able to achieve the same success as we achieved: We had the most advanced technology in our country. The quality of our product was the highest in the world. For example, the French technology is similar to the American—very energy-intensive and with a high prime cost. Therefore they find it difficult to compete with us.

Despite this disposition of forces, however, an incomprehensible situation has developed: Our high-technology product has just 5-7 percent of the world market, whereas it could have at least 25 percent. The market is large—including all countries that are developing their power industries. But there is a reluctance to let Russia into this market. For a long time the United States was practically closed to us. The Americans are not at all keen to open the door of their house to strangers.

Now, despite complex U.S. legislation and a multitude of convoluted bureaucratic obstacles, Russian industrialists

have decided to force their way through to the U.S. consumer. Our uranium first arrived in the United States in 1990. There was not very much of it, and the market did not notice the additional amount. The next year the volume of sales doubled, and this year it has grown even more.

At this point firms started to get frightened. Over the last five to six years uranium prices have clearly been on a downward trend. Many mines in the United States, Canada, and Australia have simply had to close down because they were unable to withstand the competition. Then the Russian goods came along as well....

In other words we see a picture of a conflict of interests between different industrial groups in the uranium production market, and an intensification of the struggle in this market. This intensification is attributable to the fact that in the next few years a number of long-term contracts under which the U.S. Department of Energy delivers uranium to its own and foreign consumers are coming to an end. Consequently there is likely to be increased demand in the market. But the position of the department itself could be somewhat shaky—its enrichment production costs are high. The firms Cogema (France) and Urenco (Germany, Britain, the Netherlands) want to exploit this fact and attempt to squeeze the Americans out of the European and Asian markets while, at the same time, expanding their own position in the U.S. market. Therefore our supplies are unwelcome for all of them, since they could grow in the near future to be worth \$500 million a year.

Is it possible to combine the interests of different countries? We are convinced that it is perfectly possible to do so. Why not, for example, set up an international organization similar to OPEC that would include leading producers and consumers of the goods and services of the nuclear fuel cycle? Then it would probably be easier to reach agreement about each participant's sales quotas in accordance with that participant's potential. At the moment no such pool exists in the world, but the need for one to emerge became pressing long ago. Is it really not obvious that all its members would find it much easier to resolve any contentious problems that might arise?

How are we, the republics of the former Union, to get into the world market? The question is not an idle one. Today decentralization of foreign trade and demonopolization is under way across the entire territory of the CIS. This is a natural process. But in the sphere of the uranium industry it is hardly sensible to split up into national compartments. Neither Russia nor the other independent states wins by this. Here is the reason why.

Russia has been involved in uranium production for a long time, and successfully, too. People who work in this sector know that it is most advantageous to have a complex embracing the entire nuclear cycle, including the extraction, processing, and enrichment of uranium, the production of fuel elements for nuclear reactors, the return of spent fuel, recycling and burying the fuel, etc. In the CIS only Russia possesses this complex. The other republics can only separate ore from barren rock, nothing more. But selling round timber, for example, or dressed lumber are different things entirely. Dealer realizes that he suffers enormous losses if he markets unfinished products. It is therefore puzzling to read claims in the press that Kirgizia, for example, is offering enriched uranium. Neither Kirgizia nor any other CIS countries have it, they only have the natural concentrate, and this costs much less.



In addition to all this, uranium is not galoshes that you can sell to just anybody. The uranium trade is conducted according to strict international rules. But the former republics are not members of the International Atomic Energy Agency, which monitors this trade, or the London Club, nor have they signed the Treaty on the Nonproliferation of Nuclear Weapons. In these circumstances there is no guarantee that uranium will not fall into the hands of those who will want to use it not only for peaceful purposes, nor can it be ruled out that it will be illegally resold, siphoned off abroad, or have other undesirable consequences.

Nor should Russia's considerable experience in the world market, knowledge of consumers, and reputation in the business world be discounted. Today CIS countries will have to learn all this from scratch, however, and how long this will take is anybody's guess.

It is probably worth reflecting for a bit on everything that has been said above. The conclusion suggests itself of its own accord: "Tekhsnabeksprom" is resolutely in favor of a coordinated policy in the field of uranium exports and the establishment of a unified structure operating on behalf of all uranium-extracting enterprises on CIS territory.

Let me note, incidentally, that the Russian Ministry of Atomic Energy and our organization have literally bombarded the government with proposals about this urgent problem and submitted a detailed action program. We are continuing to methodically demonstrate our point of view and the obvious advantages of realizing it. Thus far we have received no answer. We cannot help racking our brains as to why the government is dragging its heels.

At the present time, it is easy to predict the outcome of the Americans' attempt to basically block our path into their market. Nonetheless we face a tough fight, since none of our competitors wants to give ground in international trade affairs. Such is the reality of the world market. We must come to terms with this whether we like it or not.

#### **U.S. Assists in Safe N-Arms Transport, Storage**

*LD2306152492 Moscow ITAR-TASS in English  
1243 GMT 23 Jun 92*

[By ITAR-TASS diplomatic correspondent Sergey Postanogov]

[Text] Moscow June 23 TASS—A consignment of protective nylon covering for safe transportation and storage of nuclear weapons was delivered today in Moscow on a U.S. military transport aircraft from Frankfurt on the main.

"The 125 ton cargo is only the first portion of the protective covering delivered to Russia," Richard Lally, an American representative told ITAR-TASS. Lally added that the supply of nylon covering will be continued under the agreement on safe and reliable nuclear arms transportation and storage.

An official representative of the Russian Ministry of Atomic Energy, Anatoliy Sednyev, who received the cargo, said that the supply is of great importance, especially now that the process of conversion is underway in Russia.

#### **Russia's Role in Cuban Nuclear Plant Noted**

*924C1668B Moscow LITERATURNAYA GAZETA  
in Russian No 24, 10 Jun 92 p 9*

[Article by Igor Ivanov: "The Atlantis of the Castro Brothers? Will Fidel's Bulb Light up in Cuba?"]

[Text] There is a threat of a new flare-up in the struggle between the United States and Russia for markets in "Third World" countries. Following scandalous attempts to frustrate the delivery of Soviet rocket engines to India, the future of the nuclear power station Juragua, which is under construction in Cuba, may become yet another reason for dispute.

This year the builders of the Juragua Nuclear Power Station are celebrating a sad anniversary: The construction project has been underway for 10 years now, but not one of the two first-stage reactors has been started up yet. Of the two possible forms of cooperation, construction of a "turnkey" project or "provision of technical assistance," the latter was opted for in its time as the most flattering for the political ambitions of the Cuban leader. The USSR provided credit, the design, materials, and equipment, and ensured the training of personnel. The Cubans themselves undertook to build the station (to be sure, Soviet engineers always stood at their shoulder; the most critical operations were performed only by Soviet workers). A nuclear power station built with the Cubans' own hands would become a brilliant propagandistic confirmation of the success of the Cuban revolution; it was planned to dispatch cadres of specialists trained there to other Latin American countries under contracts to procure hard currency for Cuba.

A colossal construction project, which was started 10,000 kilometers away from plants manufacturing all the equipment, down to the last nut and bolt, and carried out by using personnel who were trained as they went, could not but fall behind schedules which were developed in offices. The Chernobyl tragedy altogether halted most work at the site: They had to improve the safety control system of nuclear power stations. Six years later there is still no automated system of control of the technological process (ASUTP) which is needed to this end. A company has been found which has undertaken, within 36 months after the signing of a contract, to deliver and start up the ASUTP, and therefore the first unit, which is already 85 percent finished, however. "Little" remains to be done: They have to decide who will pay the Siemens company \$120 million, and whether it is worth risking the funds at all, given that continuous pressure is being brought to bear by the United States even now with a view to preventing the arrival of fissionable materials in Cuba.

Previously, the USSR was the side which was most interested in the project (ideally, the two stages of Juragua would save us 3.2 million tonnes of oil per year which we fraternally sold to Cuba dirt cheap), whereas now the time has come for the Cubans themselves to prove that they are interested in the completion of the nuclear power station. The Soviet Union has already buried close to 1 billion rubles [R] in the stony soil of Juragua, having received not a kopek in savings so far. Meanwhile, Cuba now has to purchase energy carriers at world market prices. The island is slowly but surely returning to pre-Columbian times.

When Fidel Castro received a delegation of the Ministry of Foreign Economic Relations and the Ministry of Atomic Energy and Industry of Russia, he announced that failing to complete the construction of the nuclear power station, whose significance for Cuba is tremendous, would be criminal. While confirming that it is the legal successor of the USSR with regard to the agreement on the construction of the nuclear power station too, however, Russia made a number of strict demands which Fidel Castro will have to accept. First of all, Juragua will be covered by a separate government-to-government agreement providing for Cuba

to begin the repayment of Soviet loans for the construction of the nuclear power plant. Second, the Cubans will have to be responsible for all additional hard currency outlays; this involves not only settlements with the German company Siemens but also payments for some of the deliveries from CIS countries which now demand freely convertible currency only. Russia will no longer assume responsibility for someone else's debt: The German proposal to deliver the ASUTP on Russian credit has been rejected, and the Cubans are now devising their own scenarios for settling with Siemens in sugar, citrus fruits, or nickel.

From the point of view of Aleksandr Nechayev, first deputy chief of the Zarubezhatomenergostroy, who is in charge of construction at Juragua, the station may be completed through acquiring the Siemens ASUTP and resolving the issues of financing (there is still no trade agreement for 1992). This would be the most up-to-date and reliable nuclear power station of all which we have built in our country or abroad. A similar nuclear power station, Loviisa, which we built in Finland, has not drawn any complaints. So far, IAEA (International Atomic Energy Agency) experts have found no flaws either in the design of Juragua, where they have been on inspection trips twice. The future of the station will be decided by politicians rather than experts, however.

A mighty lobby of Cuban Americans who have settled in Florida has as much influences as the General Dynamics company which has lost to the Glavkosmos [Main Administration for the Development and Use of Space Technology for the National Economy and Science] in India. They will not even have to come up with a pretext to ban the Juragua nuclear power station. It would suffice to recall how Raul Castro yelled a couple of years ago, in a rhetorical outburst, that he would prefer a repetition of the fate of Atlantis for himself and the entire island to the threat of the restoration of capitalism in Cuba. Incidentally, the careless operation of nuclear reactors is one of the versions of the demise of the legendary continent which is favored by science fiction writers....

#### **Iran Said Employing Soviet Nuclear Experts**

PM2506103392 Moscow KOMSOMOLSKAYA  
PRAVDA in Russian 24 Jun 92 p 3

[Report by N. Dolgopopolov: "Tehran and the T-72's. Rumors Circulate That Our Tanks Could Go To Iran. For Only 9 Billion"]

[Excerpts] Paris—[passage omitted]

[Dolgopopolov] It is a little more tricky for Islam to win people over in Russia.

[Mohadissin] Nevertheless. Have you heard of the 10-year contract, worth \$9 billion, concluded with Russia? Billions will go toward the purchase of your T-72 tanks. And you know about your atomic scientists' being invited to Tehran to create a nuclear bomb?

[Dolgopopolov] Virtually no one from our country has agreed.

[Mohadissin] You are mistaken. If you want, I will give you the names of two Russian scientists who have already started work.

[Dolgopopolov] Are you not confusing them with the ones who were enticed from the Central Asian republics?

[Mohadissin] It would be wrong of me to mix them up. No, really: In addition to them, specialists in the field of nuclear

energy from several Muslim states which belonged to the USSR are also working in Iran. Incidentally, they are working alongside guests from China. Tehran emissaries have been everywhere. Their aim—and they were successful—was not only to buy brain power but also [to obtain] the sale of know-how, of your methods of processing nuclear materials, and sometimes also to buy in those materials.

[Dolgopopolov] You overestimate the possibilities of your adversaries in Tehran.

[Mohadissin] This is real. They spare no expense for these purposes. Your countrymen, who need dollars, sometimes agree. For example, the Iranian defense minister went to Kazakhstan, offering to purchase the components needed to create lethal weapons.

[Dolgopopolov] On the contrary, I read in the Paris press that Iran itself is acting as salesman for one of the warring sides in Karabakh.

[Mohadissin] That is true. Only I doubt whether it is a salesman. A supplier—would be more accurate. Not, I think, for any one side. For both, in my opinion.

[Dolgopopolov] Where is the logic in that?

[Mohadissin] It is entirely apparent. What regimes does it suit for present-day Iran to install in the neighboring ex-Soviet republics? Not communist regimes, you agree? Naturally, not democratic regimes. Not secular regimes either, of course. Consequently, purely religious regimes. But for this it is necessary to weaken both hostile sides, as, for example, in the conflict between Armenia and Azerbaijan. [Mohadissin ends]

...Of course, the Mojahedin opposition leader painted his own position of what is happening in and around Iran. But the picture is curious. Our southern neighbors are working quite closely with our fellow countrymen and our former fellow countrymen. At least, a stubborn search for atoms and nuclei is going on in our neighbors' backyard. Let us just hope that these amusing toys do not return to us again in some other form. Our brains, their skilled hands, and hey presto...?

#### **Commentary on Israeli, Iranian Nuclear Threats**

NC2006074192 Moscow Radio Moscow in Persian to Iran 1330 GMT 19 Jun 92

[Commentary by Sergey Viktorov]

[Text] Iranian Air Force Commander Brigadier General Mansur Sattari stated in an interview with Iranian correspondents that Iran is ready to face any aggression if Israel resorts to adventurism against Iran. Radio Moscow analyst Sergey Viktorov has written the following on this:

Maj. Gen. Sattari obviously made this statement in response to remarks by Israeli Air Force Commander General Herzl Bodinger, who had claimed that Iran is a growing source of danger for Israel because Iran will become a nuclear power in the next 10 years unless it is stopped.

Gen. Bodinger's threat, of course, was not only aimed at Tehran. According to him, Israel is ready to resort to all means—diplomatic and military—to prevent the manufacture of nuclear arms in the Middle East.

As for Iran, it should be noted that, as stated by official Iranian representatives, all of Iran's nuclear institutions are working only for peaceful purposes. An International Atomic Energy Agency [IAEA] delegation which visited Iran



a few months ago confirmed the peaceful intentions of Iran's nuclear program. But, the same cannot be assured about Israel, because there are periodic reports that Israel has a nuclear bomb or has almost completed production of such a bomb.

It is unlikely Israel will conclude that Iran or any other regional country will hesitate in manufacturing nuclear arms, because everyone remembers how the Israeli Air Force bombed and destroyed Iraq's nuclear reactor 11 years ago without any qualms, while as far as international law is concerned, it is unlikely that Israel is ready to repeat such an operation. [sentence as heard]

Meanwhile, there is no doubt that nuclear proliferation, especially in an explosive area such as the Near and Middle East, is extremely dangerous not only for Israel, but for the entire region. But why does Israel grant itself the right to carry out the duties of an international arbitrator and the executor of a court's decision? This is the special and unique right of international organizations and, first and foremost, of the United Nations. Only the United Nations and the IAEA have the right to obstruct a country's nuclear programs, and then only if it is proven that the country involved has violated the nuclear nonproliferation treaty. Only the United Nations can impose sanctions against such a country or aggressor, such as Iraq.

Israel's usual policy of resorting to unilateral preemptive strikes one day may harm Israel itself, because it is not unlikely a neighbor someday will conclude that the Israeli experts' investigations and activities or Israeli industrial innovations threaten it, and it will conduct a preemptive strike against Israel. I think that if this happens, Israel will retaliate, and it is very likely a war will break out. Therefore, why is Israel provoking others?

### **Kyrgyzstan 'Worried' by Nuclear Tests in China**

*LD2406184392 Moscow ITAR-TASS in English  
1816 GMT 24 Jun 92*

[Text] Moscow June 24 ITAR-TASS—Kyrgyzstan is worried over nuclear tests in China, today's issue of the newspaper IZVESTIYA said commenting on the statement published in the republic by the State Commission for Emergencies in the wake of the recent nuclear test at the Chinese testing site Lab-Nor situated 900 kilometers east of the Issyk-Kul Lake on Kyrgyz territory.

The newspaper says that according to local scientists, as luck would have it, the nuclear fallout did not reach the republic's territory only because the direction of the wind changed a day before the nuclear explosion. The special radiation monitoring service recorded no ominous changes in the radioactive background in Kyrgyzstan.

The Kyrgyz commission did not rule out the possibility of an earthquake in south Kyrgyzstan triggered by tests in China, the newspaper said.

### **Norway's Stoltenberg Urges Nuclear Moratorium**

*LD2306145892 Moscow ITAR-TASS in English  
1410 GMT 23 Jun 92*

[By ITAR-TASS correspondent Valeriy Loskutov]

[Text] Oslo June 23 TASS—Norway's Minister of International Affairs Thorvald Stoltenberg called for a moratorium among the four nations that continue to test nuclear weapons.

In a letter addressed to his counterparts in Great Britain, China, Russia, and the United States, Stoltenberg stressed the current world situation offered unprecedented opportunity to conclude an international agreement to stop nuclear weapons' testing.

Norway's initiative, Stoltenberg noted today in a radio interview, follows France's decision to halt nuclear testing this year, and the urging of U.S. congressional representatives to enact a testing moratorium in the United States. The Russian Government announced its intentions to continue testing as long as the U.S., Great Britain, and China do so.

### **Soviet Navy Equipment Offered for Sale**

*AU2406122392 Vienna DER STANDARD in German  
24 Jun 92 p 2*

[Report by Werner Stanzl from Brussels: "Sale of the Soviet Navy"]

[Text] Almost every day, the military and naval attaches of the first, second, and third world get mail from Moscow that is to confirm the sale of the Soviet Navy. Long lists are presented as a bulging bundle of highly explosive material. On the one hand, the Russians offer fleet stocks that the Ukrainian Republic claims as its heritage of the empire, which can only increase the contrasts between Moscow and Kiev. On the other hand, nuclear submarines that India, Pakistan, and the Philippines are seeking are on the lists.

Only a short time ago, the lords of the Kremlin burst with pride about many of the items. Generations of Soviet citizens had to do without what is called a decent standard of living their whole life long because of the arsenal's equipment. A NATO strategist in Brussels has now given DER STANDARD an insight into the bundle of papers that reads like the inventory of a compulsory auction. The Russian Nevikon Agency, which previously coordinated arms supplies to crisis regions, is acting as the liquidator.

There are papers and specifications concerning some items on which the stamp "top secret" was simply crossed out. On one photocopy, the first line of the old distribution key can still be seen. One of the recipients: comrade CPSU general secretary. "Only a few years ago, you would have been either celebrated as the best spy in the West or executed by a Soviet execution squad for possession of this document," the NATO expert said with a smile.

The document in question refers to the showpiece of the clearance sale. Three versions of the still unfinished aircraft carrier Variag is offered: In its present state, finished, or finished with a complete training team for a two-year training period.

As is known, China is very interested in this item, while it was agreed with Moscow that Washington and the Alliance are to be continuously briefed on the state of the deal via the NATO Cooperation Council. Members of the French Armed Forces who do not understand why money is simply given to Russia when a quid pro quo is possible, however, expressed their interest to their defense minister.

The Suvorov and Lazarev battleships, the Skrytiy and Vzyvayushkiy destroyers, all of which are armed with missiles for combat beyond the horizon, a large number of submarines, among which are also very modern ones, 1,600 combat aircraft, troop carriers, amphibious landing craft, assault boats, and an armada of T-72 type tanks are available, among other things. As many as 200 brand-new MIG-29 fighter planes have been offered to the Germans.

Since Pakistan, India, Iraq, Jordan, Yemen, Syria, Libya, and several South American and Southeast Asian states have shown interest in purchases, the NATO expert did not rule out possible proceeds of up to 10,000 billion schillings. This amount would be 10 times higher than the Soviet Union's foreign debts, for two-thirds of which Russia is liable.

### **Oversight of Rocket Technology Sales Urged**

924C1668A Moscow LITERATURNAYA GAZETA  
in Russian No 24, 10 Jun 92 p 10

[Article by Vladimir Postyshev, chief specialist of the Commission for Transportation, Communications, Data Processing, and Space of the Russian Federation Supreme Soviet, in the column "Point of View": "Much Ado—About What?"]

[Text] The strength of politics is in foreseeing situations with no way out. The strength of politicians is in the skill of finding a way out of an impasse with minimal losses.

Unfortunately, the sensational deal involving the transfer of missile technology to India does not confirm the presence of such features in the former USSR or present-day Russia. Judge for yourselves. In June 1990, President M. Gorbachev and President G. Bush signed a joint declaration which, in particular, approved the goals and principles of the nonproliferation regimen for missile technology which bind 18 countries under a 1987 agreement. Subsequently, in January 1991, Glavkosmos [Main Administration for the Development and Use of Space Technology for the National Economy and Science] (at the time a main administration of the USSR Ministry of General Machine Building) and the Indian Space Research Organization (ISRO), that is, two government structures, signed a contract for the delivery of two samples of and the technology for manufacturing cryogenic engines for booster rockets.

To put it mildly, these documents are not in mutual agreement. The issue of whether the right hand knows what the left hand is doing is interesting. There is no argument that we painted ourselves into a corner, however. Ninety percent of the international space market has been closed off by COCOM [Coordinating Committee for Multilateral Export Controls] restrictions, and virtually the only loophole, that in India, has been closed off by M. Gorbachev.

So, Deputy Minister of Foreign Affairs G. Berdennikov demands that the Russian Government suspend the Glavkosmos-ISRO deal. Minister of Foreign Economic Relations G. Aven believes that the suspension, to say nothing of cancellation, of rocket-related contracts with India will inflict considerable political and moral damage on the interests of Russia. G. Burbulis takes a hard line with regard to the United States, referring to a certain international expert review of the contracts. B. Yeltsin calls G. Bush with a request to show good will in the process of expanding markets for rocket technology.

Meanwhile, on 11 May, following incomprehensible consultations at the level of experts, the United States announced the imposition of sanctions against Glavkosmos for two years. On 14 May the Foreign Relations Committee of the U.S. Congress unanimously adopted a resolution against giving Russia the entire package of financial assistance for reforms.

We are damned if we do, damned if we don't. If the contract is canceled, the direct losses will come to several hundred

million dollars, and indirect losses due to the deterioration of Russian-Indian trade relations to more than \$1 billion. We run the risk of losing the \$24 billion promised to Ye. Gaydar. As far as India itself is concerned, it is now establishing unofficial contacts with the rocket and space industry of China as a possible alternative source of technologies.

I would like to voice two considerations in conjunction with this.

FIRST. The rocket technology control regimen is not based on international law arrangements but rather solely on American arrangements. At one time it was simply suggested that Western countries subscribe to a declassified NATO instruction which was merely a reproduction of an annex to U.S. laws with regard to restrictions on the transfer of equipment and technology.

SECOND. We need to address the primary source—American legislation—in order to figure out the essence of the complaints against Glavkosmos and the U.S. position. No phone calls by one president to another or international expert reviews will help in this matter. In turn, direct consultations between the supreme legislative organs of the Russia—India—United States triangle, with France also invited, would be very useful.

Noisy rhetoric to the effect that the "Glavkosmos-ISRO" deal is of an utterly peaceful nature and, therefore, pressure by the Americans is not legitimate, is hardly productive. Yes, cryogenic technologies to be transferred to India were developed for the N-1 Moon rocket, and are indeed a rare example of space technology that was intended for peaceful uses from the beginning. The objective of the aforementioned American laws is to prevent the reinforcement, however, especially in the area of high technology, of countries which pose even a potential threat to the national interests of the United States.

What about a way out of this situation? Russia should come up with a diplomatic initiative, the essence of which I see as follows: It is necessary to create an international regimen for the nonproliferation of rocket technologies, the same as with regard to nuclear weapons. It would not cut off channels for technology transfer, but would put the use of such technologies in various countries under control. This regimen should not hinder the cooperation of states in the conquest of space depending on whether these states appear bad or good to someone. The experience of IAEA [International Atomic Energy Authority] could be used as an example.

### **CIS's Shaposhnikov Speaks on Nuclear Arms**

#### **Russia May Resume Testing**

AU2206105892 Hamburg BILD AM SONNTAG  
in German 21 Jun 92 pp 4-5

[Interview with Yevgeniy Shaposhnikov, commander in chief of the CIS Armed Forces, by F. Weckbach-Mara; place and date not given: "Russians Threaten To Resume Nuclear Testing"]

[Text] [Weckbach-Mara] How much longer does the CIS' decision to halt nuclear tests still hold?

[Shaposhnikov] Until the end of the year. If by then the other nuclear powers fail to announce a halt to nuclear testing, Russia will be forced to resume its test series next year. If the others make such an announcement, we are ready to continue to abstain from testing, however.

[Weckbach-Mara] How many states on the territory of the former USSR have nuclear arms now?

[Shaposhnikov] The nuclear weapons of the former USSR are now stationed on the territory of Byelarus, Kazakhstan, Russia, and Ukraine. They are under the supreme command of the CIS. The president of the Russian Federation, Boris Yeltsin, has his finger on the button for using these weapons in an emergency. Nevertheless, it is our objective to eliminate all nuclear arms from the surface of the earth. A first step in that direction is a general ban on nuclear testing. The next step is the planned destruction of all nuclear weapons and other kinds of weapons of mass destruction under mutual control.

[Weckbach-Mara] Will the CIS Armed Forces or armies of individual member states participate in military peace-keeping operations, for example in Azerbaijan or Yugoslavia?

[Shaposhnikov] Our regular Armed Forces have other tasks. For such cases we will set up groups of military observers and "collective forces for keeping the peace," however.

### 'Huge Cost' Deters Transfers

*LD2306180592 Moscow Radio Moscow World Service in English 1510 GMT 23 Jun 92*

[Text] The recent strategic arms deal between Moscow and Washington gives a renewed impetus to nuclear disarmament by the Commonwealth of Independent States on the central issue in military relations within the entity. Earlier, CIS heads of state agreed for all nuclear weapons to be transferred to Russia by 1994 for subsequent destruction under joint control. The commander-in-chief of the Commonwealth forces, Marshal Shaposhnikov, explains what changes have taken place since:

Marshal Shaposhnikov says summit talks in Alma-Ata and Minsk failed to take into account the huge cost of weapons transfers to Russia. In his view this must be made first part [as heard] of the arms cuts agreement reached by Presidents Yeltsin and Bush for two main reasons. First is the economic considerations and the second, the naming of the year 2000 as the deadline for nuclear weapons destruction.

We asked Marshal Shaposhnikov what he makes of the new strategic arms agreement reached in Washington.

Because of the remaining difficulties on the Russian side, Marshal Shaposhnikov described it as an agreement of intent for the time being. He said the bulk of the Commonwealth nuclear stockpile was ground-based and stationary, compared with America's which was sea-launched and mobile. But he spoke of the need for further work to see that there is no damage to either side's security. Marshal Shaposhnikov agrees there is no alternative to disarmament, but wants parity, he said that 50 years of posturing had been damaging to the country's economy, but he warned against all-out, reckless disarmament, calling for reason and for careful calculations to be made first. We asked him was it true that the Washington deal had been struck behind the back of the military.

Marshal Shaposhnikov said that all of that came under lengthy discussion both by the CIS Chief Command and Russia's Defense Ministry, which explains why the Russian foreign minister, Mr. Andrey Kozyrev, was so tough at the negotiations in Washington and London. The marshal raised the possibility that President Yeltsin must have

found a way for compromise and that it was up to the military to finalize the agreement.

### Russian Presidential Order on Chemical Arms

*PM2206114492 Moscow ROSSIYSKAYA GAZETA in Russian 20 Jun 92 First Edition p 3*

[Unattributed report under the rubric "The Government Has Resolved": "For the Destroyers of Chemical Weapons"]

[Text] By a presidential directive, priority measures have been laid down for the fulfillment of Russia's international commitments in the sphere of the destruction of chemical weapon stockpiles.

The presidential Committee for Convention Problems of Chemical and Biological Weapons is charged with the organizational responsibility. The committee is instructed within two months to draw up and, by agreement with local organs of power, submit to the government proposals for the phased creation of a system of facilities for the destruction of chemical weapon stockpiles. Here provisions must be made for measures to ensure the social protection of personnel, the comprehensive development of the social infrastructure, and the improvement of material and social provision for the population.

This includes establishing privileges and advantages as regards working conditions, remuneration, and pension provision for workers engaged in the destruction of weapons. Individual houses and health camps for children are to be built in a 15-km zone around the facilities. Diagnostic centers are to be set up at medical institutions serving workers at the facilities. Ecological monitoring systems and information points are to be set up in all inhabited localities in the zones. Compulsory state personal insurance and insurance of citizens' property is to be organized.

### Russia Opposes Ukraine, CIS Control of N-Arms

*LD2306105192 Moscow ITAR-TASS World Service in Russian 1000 GMT 23 Jun 92*

[By ITAR-TASS correspondent Andrey Naryshkin]

[Text] Dagomys (Southern Russia), 23 Jun—"The Ukrainian delegation is insisting on administrative control of strategic nuclear weapons deployed on its territory," said Army General Pavel Grachev, Russia's minister of defense, to the ITAR-TASS correspondent in the corridor at the Dagomys talks today.

"This would essentially lead to dual subordination of strategic units—to Ukraine and to the CIS Joint Armed Forces," he said. This means a situation in which issues such as paying for the upkeep of servicemen, taking charge of routine drafts, and providing housing, would fall in the area of competence of the Ukrainian military command.

"Russia does not agree with this," the minister stressed. "Our view is unambiguous: the operational control of strategic forces must be exercised through the CIS Joint Armed Forces. We have agreed to prepare a working document in which we will attempt to agree on our positions at the level of experts." In the afternoon it will become known how productive this work has been.

"Although legally the strategic missile forces are, following the Lisbon meeting, Russia is fully responsible for their use," the minister said, "for the time being the missiles are on the territory of four states and they are to be managed by

the Main Command of the CIS Joint Armed Forces and the Strategic Forces Command of the Commonwealth."

### **Ukraine Still Strives for Nuclear-Free Status**

*LD2306133492 Kiev Radio Ukraine World Service in Ukrainian 1900 GMT 22 Jun 92*

[Text] The utterances of Yevgeniy Shaposhnikov, commander in chief of the CIS Joint Armed Forces, were described as groundless by the commission of the Ukrainian parliament on the issues of defense and state security. He stated at the news conference in Moscow that the position of Ukraine on strategic nuclear weapons is insufficiently constructive and, in the opinion of the marshal, is a sign of our state's aspiration to become nuclear. Shaposhnikov also expressed disappointment on Ukraine's unwillingness to join the system of collective security of the Commonwealth. In an interview to the teleradio agency "Novyny," Valentyn Lemesh, deputy head of the parliament commission on the questions of defense and state security, stressed that Ukraine is not changing its course on reaching a nuclear-free status. It became in its time an owner of nuclear weapons not by its own will but as part of the former Union. As for the collective security, as Valentyn Lemesh stated, joining such a system runs counter to the intention of Ukraine to become a neutral state outside any blocks. At the same time, Ukraine supports on a bilateral basis development of many-sided relations with the CIS countries including in the military sphere.

### **Arzamas-16 Begins Destroying Nuclear Weapons**

*LD2306152692 Moscow Radio Rossii Network in Russian 0300 GMT 23 Jun 92*

[Text] According to Ima-Press, in the town of Arzamas-16, the destruction of tactical nuclear weapons has begun. The arrival of a group of observers from Ukraine is expected. They are to see for themselves that these weapons are really being liquidated and not moth-balled.

### **Arzamas-16 Scientist Urges Nuclear Deterrence**

*PM2406115892 Moscow KOMSOMOLSKAYA PRAVDA in Russian 19 Jun 92 p 3*

[Interview with Yuriy Trutnev, first deputy scientific leader at Arzamas-16, by S. Ivanov and Ye. Umerenkov, at an international conference on "The Democratization of Society and Military Security"; place and date not given: "How Many Guns You Need To Ensure That They Are Not Fired"]

[Text] Apparently the doctrine of "reasonable sufficiency" is taking possession of the minds of our politicians and nuclear scientists.

Many of our nuclear scientists who until recently were "top secret" took part for the first time in the recent international conference on "The Democratization of Society and Military Security." One of them was Yuriy Trutnev, academician of the Russian Academy of Sciences and first deputy scientific leader from Arzamas-16. Immediately after delivering his report he found himself surrounded by guests from the United States.

"Where are the plants where nuclear weapons are assembled? Pinsk? Chelyabinsk?"—one American kept asking.

"I do not really know," our academician replied.

The guest did not give up: "How is your work on third-generation nuclear weapons going?"

"How is yours going?"

"In our country they say it is of no interest."

"It is of no interest in our country either."

The American nodded understandingly. In view of his lack of success, we continued the "interrogation."

[KOMSOMOLSKAYA PRAVDA] Yuriy Alekseyevich, what are the limits nowadays on how candid our nuclear experts are with their colleagues from the United States? Who asks most questions: them or you?

[Trutnev] They ask a lot of questions, but they do not answer all ours. True, we are not always in a great hurry to answer theirs either. Although compared with the way it used to be, we are far more open. But within limits, of course. So as not to do anything detrimental to the country's defense capability or violate commitments relating to the nonproliferation of nuclear weapons.

You know, too many items on nuclear weapons, including purely specialized items, now appear in the open American press. I think they often contain information contrary to nonproliferation commitments. In this respect we show considerably more restraint than the Americans.

[KOMSOMOLSKAYA PRAVDA] Is this not the result of our old desire to keep absolutely everything secret?

[Trutnev] It is simply a sense of responsibility. You can see that secrecy has been reduced markedly here, even foreigners come to visit us now.... But there are things we simply cannot talk about if we do not want nuclear weapons to proliferate across the world.

[KOMSOMOLSKAYA PRAVDA] They say the range of the SS-20 is sufficient for a missile from Baghdad to reach Lugansk....

[Trutnev] Yes, it is sufficient. Anything is possible, theoretically. Theoretically, it is possible to buy nuclear experts, too.

[KOMSOMOLSKAYA PRAVDA] Is it not the case that the process of disarmament of the two nuclear superpowers, combined with the possibility of Third World countries making a nuclear bomb, is making global security less safe than in the days of the "stable" confrontation of recent years?

[Trutnev] One thing I am sure of is that a nuclear conflict is hardly likely to break out between us and Europe. They have too good a life, too much to lose. We have no reason to make war with them. They need us and we need them, provided, of course, that they do not regard us solely as a source of raw materials. But there are still plenty of reasons for crises in the world. For instance, how many people can the earth feed? We once asked the Americans: Can you guarantee that all countries will have your standard of living? They replied: No. So there is your source of conflict.

[KOMSOMOLSKAYA PRAVDA] Bombs as a deterrent. But how many do you need for that purpose?

[Trutnev] Formerly, only a large number of nuclear weapons allowed us to hope that even given the destruction of 90 percent or more of our own systems (as I understand it, we did not intend to inflict the first strike), the potential would be preserved for a retaliatory strike. So that is how it was—a

race. Now the situation is different, the political guidelines have changed, and neither we nor the Americans need such a quantity of weapons. But, the process of reductions should be bilateral and proceed on a basis of parity.

I believe it is necessary for nuclear weapons to be a deterrent, but in such a way as to have the least possible effect on the civilian population, that is, we should make them battlefield weapons. New tasks make new demands on the means of nuclear deterrence. I am talking about third-generation nuclear weapons, which were already being developed [razrabatyvalos] in our country. I hope there will be a fourth generation too...

[KOMSOMOLSKAYA PRAVDA] So to whom should this threat of unacceptable damage be "addressed"?

[Trutnev] As I understand it, Russia has not yet finally formulated a military doctrine, a concept for arms systems. At the same time, we no longer say: Here is a specific enemy. This means that defense is necessary in all salients, taking into account the changing political situation in the world. Where, from what quarter, a threat could arise—that is a matter for the politicians and diplomats. But, we have to have guarantees of defense, guarantees of deterrence. The Russian president stated recently that our missiles are not now targeted on the United States. But the Americans confirmed that their missiles are still targeted on us. That is politics for you. We propose one thing, they say another.

[KOMSOMOLSKAYA PRAVDA] But maybe the very existence of nuclear weapons is an obstacle to confidence?

[Trutnev] First, the process of creating and strengthening confidence cannot be very sudden. Although recently the possibility of nuclear conflict has certainly lessened considerably. Second, what do people mean when they say: Let us ban nuclear weapons and think of something else that could act as a deterrent. Replace nuclear weapons with some other mass destruction weapon? Some peacemakers! Nuclear weapons are political weapons, and the very fact of possessing them forces a possible adversary to consider whether it is worth his while to attack, to start a conflict.

[KOMSOMOLSKAYA PRAVDA] So for the time being nuclear terror is a "good thing" that we cannot do without?

[Trutnev] Do you know what their attitude to this is in America? They are proud to have carried out an impressive nuclear project, and the Livermore and Los Alamos laboratories are seen as a national asset. In our case, nuclear centers are apparently the source of all our ills—they stripped the country bare, they made enemies of practically the whole world. What are we, misanthropists, or what? We fulfilled our duty honorably, strengthening defense capability in the context of the political realities that existed at the time. Go and ask the politicians, those who created this confrontation! What were we supposed to do, give up work?

That is not how we were raised. Even Sakharov worked with enthusiasm. But now they cast us as the enemy: Those nuclear scientists, they are to blame. It is not true. We are in favor of reductions, in favor of an eventual ban on nuclear weapons. But you have to act on the basis of realities: When the world community is integrated to a sufficient degree, then the question of nuclear weapons will disappear.

## Kazakhstan's Semipalatinsk Test Range Viewed

### Reorganization Noted

*LD2306130392 Moscow Radio Rossii Network in Russian 1200 GMT 23 Jun 92*

[Text] The Semipalatinsk nuclear testing range has been reorganized into the national nuclear center of Kazakhstan. Its employees will be engaged in developing nuclear safety measures and technologies for burial of nuclear waste. They will also be involved in Kazakhstan's program to build a network of nuclear power stations. Three experimental nuclear reactors and equipment for work with fissile materials are now at the disposal of scientists, RIKA reports.

### Closure Planned

*LD2306191992 Alma-Ata Kazakh Radio Network in Russian 1400 GMT 23 Jun 92*

[Excerpt] In order to eliminate the consequences of nuclear explosions the Cabinet of Ministers has made a decision on additional measures to implement the president's decree on the closure of the Semipalatinsk nuclear test range.

It has been decided to resolve within two months questions on the declassification of materials concerning the radioecological and medical-biological situation on the territory of the former test range and other regions in the republic where tests were held of nuclear or thermonuclear weapons. [passage omitted]

## Krasnoyarsk Search for Stolen Cesium Continues

*PM1706133392 Moscow IZVESTIYA in Russian 12 Jun 92 Morning Edition p 6*

[Report by Aleksey Tarasov: "Cesium Stolen in Krasnoyarsk"]

[Text] A lead container containing a source of radioactivity—cesium—has been stolen in Krasnoyarsk from the base of the oil pipeline administration.

It has been established that the culprits, having unsealed the storehouse, which was essentially a shoddily constructed metal garage, were looking for precisely this lethal substance? What for? So far we can only guess.

If the container is opened, the yield of an exposure does at a distance of one meter will be one roentgen an hour. Touching the source will give a radioactive burn and a few hours in its vicinity will give a lethal dose of radiation.

Now, as I am filing these lines, an intensive and so far unsuccessful search is under way in Krasnoyarsk.

## Novaya Zemlya Nuclear Test Site 'Going Ahead'

*PM1906081592 Moscow ROSSIYSKAYA GAZETA in Russian 18 Jun 92 First Edition p 2*

[Report by parliamentary observer Aleksandr Linkov under the "Parliamentary Hearings" rubric: "Will Explosions Rock the Island?"]

[Text] Will there or will there not be nuclear tests on Novaya Zemlya? Russian people's deputies decided to examine this in detail at their Sixth Congress, particularly since people living in the north and various social organizations keep sounding the alarm. A torrent of letters and telegrams demanding a complete ban on tests on the island is pouring into the Supreme Soviet. So on 16 June the Committee for Issues Relating to the Environment and the Rational Use of

Natural Resources and the Committee for Defense and Security held parliamentary hearings into whether it is advisable for the Novaya Zemlya nuclear test site to continue functioning.

A total of 132 tests have been conducted there since the test site has been in existence, 90 of them in the atmosphere, above ground, or underwater. Following the Moscow agreement, the last 42 explosions have been underground. The designers claim that it is impossible to do without such tests in the natural environment when developing nuclear weapons. Theoretical research can only be confirmed by practical experiment. In laboratory conditions it is impossible to get a real picture of the processes that are occurring. Tests are also necessary to check and improve existing weapons. Today development trends in this weapons sector themselves depend primarily on a political decision, the formulation of Russia's military doctrine, and the drawing up of a blueprint for developing nuclear weapons. But, at the moment, the country's leadership has none of these.

It is well known that the tests on Novaya Zemlya have been suspended for the time being. But work on preparing previously planned underground tunnels is going ahead. Admittedly, no nuclear charges nor the various monitoring devices have been supplied. Because if this work is stopped, it will take five to six years to start it up again. Incidentally, the cost of one of these tunnels comes to 15-20 million rubles [R], and a borehole costs R8-10 million.

According to an assessment by specialists, the radiation situation on the island is relatively favorable. Nor has it been disrupted during the tests that have been conducted, owing to the carefully manufactured designs.

Russia did not develop any nuclear weapons and had no sites of its own for testing them. All this was done by the leadership of the former Union in the strictest secrecy. It is only now that we are finding out about a lot of things. The Chernobyl disaster was a serious reminder to everyone of what a dangerous line mankind is treading. It is easy to understand the concerns of the northerners, who are living cheek by jowl not just with a powder keg but with an island stuffed with God knows what. After all, according to existing information, in the past a large amount of radioactive waste was buried deep in the sea near here, and it is not known how it will behave in the future. The Russian Supreme Soviet has still to decide the fate of the Novaya Zemlya archipelago.

#### **Uzbek President Favors Nuclear Disarmament**

*LD2306135492 Moscow ITAR-TASS World Service  
in Russian 1301 GMT 23 Jun 92*

[By ITAR-TASS correspondent Valeriy Fedortsov]

[Excerpt] Jakarta, 23 Jun—Uzbekistan favors nuclear disarmament and the spread of this process to conventional armaments, Uzbek President Islam Karimov said in reply to questions from the ITAR-TASS correspondent. In this connection we have great respect for the anti-nuclear policy being implemented by Indonesian President Suharto, he said.

The head of the Uzbek state was in Indonesia on a two-day state visit which ended with the signing of a number of documents concerning ties between the two states, including the establishment of diplomatic relations between them. [passage omitted]

**GERMANY****GDR Allegedly Worked With Western Arms Dealers**

*LD2006073892 Berlin ADN in German  
0130 GMT 20 Jun '92*

[Text] Hamburg (ADN)—According to a report in the Hamburg news magazine DER SPIEGEL, the GDR worked closely with Western dealers in the arms trade. The magazine writes in its latest edition (published Monday) that GDR managers built up a dense network of Western agents,

relying in particular on Western partners with offices abroad. This close cooperation was treated as a matter of absolute secrecy.

The GDR tried to gain access to the latest Western arms technology through these contacts. The GDR was particularly interested in information on biological and chemical warfare and on laser weapons and killer satellites.

The report adds, however, that in its arms dealings the GDR itself became the plaything of other powers. East Berlin did not know, for example, that a shipment of arms originating from Rostock was destined for the anti-Sandinista Contras in Nicaragua. The deal was initiated by two West German businessmen. U.S. Lieutenant Colonel Oliver North masterminded the deal, apparently without the GDR's knowledge.

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